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EMPHYEMA THORACIS

REHABILITATION ASPECTS OF POLIOMYELITIS

HYDROGYMNASTICS IN THE PHYSICAL THERAPY OF
POLIOMYELITIS

Kristian Gosta Hansson

CRIME IN RELATION TO MEDICINE

Hon. Franklin Taylor

CRIME AND PSYCHIATRY

Siegfried Block

MENTAL HYGIENE NOTES

Frederick L. Patry

OTHER TOPICS

"BUILD THEE MORE STATELY MANSIONS" . . . THE HEART OF HUNTER
. . . MEDDLESOME MEDICINE . . . THE INDISPENSABILITY OF CAR-
NAGE . . . WE SHALL HOPE FOR THE BEST . . . THE LIBRARY OF THE
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Editorials

"Build Thee More Stately Mansions"

THE dinner on February 22 at the Hotel Astor signalizes an exceptionally sincere gesture of organized medicine by way of honor to a highly regarded colleague—Dr. Charles H. Goodrich, President of the Medical Society of the State of New York.

The three thousand outstanding professional men who are sponsoring this dinner will derive especial delight from this occasion, not only because they will be honoring a lovable and able leader, but because they will be adding something to the Frank Jennings Memorial Building Fund of the Medical Society of the County of Kings and Academy of Medicine of Brooklyn.

The countrywide movement for better housing applies not alone to the general population but to medical organizations now inadequately housed. We must plan constructively for the next generation of physicians at the same time that we meet our own immediate needs. For medicine not to keep pace will mean loss of prestige and power. Groups of real social importance do not meet in outworn shacks and keep their working libraries in dank cellars.

Nothing less than a cathedral befits Minerva Medica.

The Heart of Hunter

JOHN HUNTER (1728-1793) was one of the celebrated victims of angina pectoris and coronary disease who figure in the early descriptions of such affections. Thus we have Everard Home's accounts of Hunter's sufferings over a period of years, published in 1796 (*Life of John Hunter*).

Hunter was one of the hardest of workers. His day began at five or six o'clock in the morning and he averaged about five hours sleep at night. Between his vast practice, his lectures and his anatomical researches, his waking hours were crowded with work. Work and worry, for Hunter's temperament was

unduly emotional, contributed to his ailments in later life.

At first the attacks of angina were far apart and related to effort. Later they would occur while he was at rest. Emotional excitement always meant a more severe attack. Home's descriptions of the attacks are graphic. The severe character of the pain in the heart, neck, shoulder and left arm, the sense of impending dissolution and the agonized collapse are all classically described.

The final seizure was on the occasion of a meeting at St. George's Hospital, when, emotionally irritated and strongly suppressing the irritation, he left the meeting room and within a few minutes dropped dead while still upon the premises.

The autopsy revealed the following findings:

The pericardium was very unusually thickened, which did not allow it to collapse upon being opened; the quantity of water contained in it was scarcely more than is frequently met with, although it might probably exceed that which occurs in the most healthy state of these parts.

The heart itself was very small, appearing too little for the cavity in which it lay, and did not give the idea of its being the effect of an unusual degree of contraction, but more of its having shrunk in its size. Upon the under surface of the left auricle and ventricle, there were two spaces nearly an inch and a half square, which were of a white colour, with an opaque appearance, and entirely distinct from the general surface of the heart: these two spaces were covered by an exudation of coagulating lymph, which at some former period had been the result of inflammation there. The muscular structure of the heart was paler and looser in its texture than the other muscles in the body. There were no coagula in any of its cavities. The coronary arteries had their branches which ramify through the substance of the heart in the state of bony tubes, which were with difficulty divided by the knife, and their transverse sections did not collapse, but remained open. The valvulae mitrales, where they come off from the lower edge of the auricle, were in many places ossified, forming an imperfectly bony margin of different thicknesses, and in one spot so thick as to form a knob; but these ossifications were not continued down upon the valve towards the chordae tendineae.

The semilunar valves of the aorta had lost their natural pliancy, the previous stage to becoming bone, and in several spots there were evident ossifications.

The aorta immediately beyond the semilunar valves had its cavity larger than usual, putting on the appearance of an incipient aneurism; this unusual dilatation extended for some way

along the ascending aorta, but did not reach so far as the common trunk of the axillary and carotid artery. The increase of capacity of the artery might be about one-third of its natural area; and the internal membrane of this part had lost entirely the natural polish, and was studded over with opaque white spots, raised higher than the general surface.

There was a circumstance in Hunter's life which it seems to us must be correlated with the above postmortem findings. Having accidentally inoculated himself with lues, he purposely delayed treatment in order to study the disease in his own person. Nor could the treatment in his day, especially when belatedly undertaken, have been notably effective. It would therefore seem reasonable to associate this infection with some of the tissue changes found at autopsy.

Meddlesome Medicine

THE ingenuity of the exponents of "meddlesome medicine" in devising ways and means to throw the physiologic budget out of balance sometimes amounts to genius; one thinks of Bret Harte's lines:

Which I wish to remark,
And my language is plain,
That for ways that are dark,
And for tricks that are vain,
The Heathen Chinese is peculiar.

Thus the curious spectacle and amazing paradox is sometimes presented of all the glorious resources of enlightened medicine applied in the treatment, say, of surgical shock in one ward, while in an adjoining ward a patient is being shocked with digitalis by—what shall we say?—by one of our own brand of "Heathen Chinese!"

It has been suggested that a volume titled "Meddlesome Medicine" be published annually, perhaps on the order of *New and Nonofficial Remedies*, for the guidance of students and young practitioners. We believe that such a work is needed to keep up with, but at the same time guard against, the annual increment of wonderful nonsense in the field of therapy. Such a work would cover a wider field than mere drug therapy of the fantastic order; it might well include bizarre surgery.

The Indispensability of Carnage

DR. Leroy T. Patton reminds us, in an article in the *Military Engineer*, that in the Napoleonic Wars, over a period of

nearly twenty years, there were 684,270 battle casualties, whereas during 1935 there were, in this country, 1,317,000 automobile casualties.

How sincere, then, are all the protestations against war as an abnormal way of civilized life, when all the facts go to show that either in war or peace casualties are a necessity—an essential part of our system? If we do not effectually prevent the casualties of either peace or war, there must be an impelling wish to have them occur. These things seem to be in the nature of man at his civilized best. Perhaps we might as well accept their inevitability and relinquish the hypocritical pose, which more and more impresses nobody of intelligence.

In bountifully providing the occasions for such casualties, we meet adequately the necessity for emotional outlets on a low level of life, just as have admirable technics for the outlets required by a level of high quality.

These things are all natural parts of our real philosophy of life and fit perfectly into our interesting type of civilization. No philosophy has ever been so widely accepted and efficiently applied.

We Shall Hope for the Best

IN our issue of December, 1937, we discussed Carrel's proposal for an Institute of Psychobiology, to supply the information necessary for men and nations under civilized conditions. It is obvious that we are not now able adequately to cope with modern social, economic and political problems and that if the solution rests anywhere it rests with science. A true science of man is needed.

Now the American Association for the Advancement of Science seeks to establish a "Court of Wisdom" such as Carrel has suggested and such as the Harvard Tercentenary Conference and the British Association for the Advancement of Science have discussed. The scholars of this "court" would give mankind the benefit of its collective wisdom on world affairs.

There seems to be nothing in the resolutions affirmed at the Indianapolis meeting of the American Association for the Advancement of Science to bear out the interpretations read into them by the

press of the country. Thus the newspapers have talked about initial steps aiming to unite the world's democratic countries into an articulate body of organized knowledge—a world lens that will focus the scattered light of man's collective wisdom into a mighty intellectual beam illuminating the troubled paths men and nations now travel. This "court," says the press, would exert a moral force on political and social spheres. Such a "court," according to the newspapers, would regard "national science" as a contradiction in terms.

There are three political implications in these press comments. One would suppose that politics was to comprise the chief interest of the "Court of Wisdom." If that were to turn out the case we could better do without any "court."

But as we have said, there is nothing in the resolutions to support such press interpretations.

Nobody knows, of course, just how well such a body would function. Even among scientists, there are plenty of ignorant, prejudiced and cowardly men. We have never forgotten the action of a group representing the American Medical Association which, under the "moral" coercion of a Prohibitionist atmosphere, formally declared that under no circumstances was alcohol of any value in the treatment of disease. Once upon a time, Meltzer, the noted physiologist, began to organize a medical brotherhood. Then, ironically, came the World War and what promptly happened can be easily guessed.

We shall continue, however, to hope for the best.



CARDIAC SURGERY

Definite advances have been made in the field of cardiac surgery. Although the present mortality is still relatively high, equally high mortality rates characterized the developmental period in several other fields of surgery which are now well established and associated with a reasonably low mortality. The better selection of cases for elective cardiac surgery and further improvement in operative procedures, anesthesia, and postoperative treatment, as well as the acquisition of skill by an increased number of surgeons in performing this type of surgery, may well result in considerable extension of cardiac surgery beyond its present limits.

—AMBROSE H. STORCK, M.D.,
in Tri-State Med. J., Dec. '37.

STATUS OF ELECTROCARDIOGRAPHY

Electrocardiography is a valuable adjunct to other methods in the study of heart disease, since it gives information regarding one factor upon which other methods throw no light—the cardiac impulse. By use of the electrocardiogram the direction of the impulse, its electromotive force, and the time required for its transmission through the myocardium can be estimated. From this information important inferences can be made regarding the condition of the myocardium. The value of electrocardiography is definitely limited, since it gives no information regarding other factors which are of great importance in cardiac diagnosis.

—EDGAR HULL, M. D., F. A. C. P.
in Tri-State Med. J., Dec., '37.

Empyema THORACIS

ALTHOUGH the term Empyema: Thoracis literally means a collection of pus within the chest it is generally applied only to collections of pus within the pleural cavities. In this talk the term will be further limited to apply only to the collections of pus developing during or after pneumonia and other acute respiratory infections.

From an etiological standpoint the chief organisms are the pneumococcus, the streptococcus and the staphylococcus with their frequency following this order. Except in early childhood the staphylococcus is seldom the infecting agent, but in the first few years of life it accounts for an appreciable number of cases of empyema. Neuhof (1) has reported a relatively large series of cases from the Mount Sinai Hospital in New York.

By far the most frequent cause of empyema is the pneumococcus. It usually reaches the pleura only after traversing the pulmonary alveolar epithelium. By the time it has reached this structure the underlying pneumonic process will usually have undergone resolution. The empyema caused by it therefore acts as a sequel rather than a complication and the patient is better able to combat it. As the pneumococcus tends to confine its invasion to individual lobes localization of the effusion usually occurs. Adhesions form promptly, the mediastinum becomes stabilized and the fluid rapidly becomes purulent.

The streptococci may invade the pleura at the same time that the lung is being attacked. These organisms reach the periphery by way of the peribronchial lymphatics and tissue spaces, involve large areas, and cause the exuda-

**RICHARD HARDAWAY MEADE,
Jr., M.D.
Philadelphia**

tion of much fluid, which remains in a thin state for a long time and does not become frank

pus for many days. There is little tendency for the process to become walled off, the mediastinum is slowly stabilized and the pneumonia does not rapidly subside. The pleural collection not only handicaps the respiration in the underlying lung, but also the respiration in the opposite lung through the mobility of the mediastinum.

IN general, the symptoms produced by an empyema of any type will be those of a pleural effusion plus the symptoms of the underlying inflammatory process. In the pneumococcus type the symptoms come on usually just after resolution of the pneumonic process has been heralded by a drop in temperature. For one, or several, days the patient seems to be convalescing properly, then the temperature begins to rise again, malaise returns, and there may be discomfort in the chest. Examination of the chest shows signs of fluid which will be corroborated by the x-ray. At times the physical signs will not be definite whereas an x-ray of the chest taken in the A-P plane with the patient lying on the affected side will demonstrate the presence of fluid. This is the earliest definite evidence that can be obtained, without recourse to the aspirating needle. The fluid in this early period will be thin and show little clouding, but each day it will become thicker and often within a week definite pus may be obtained. As the fluid increases in amount symptoms due to its pressure will develop and dyspnea may become marked. Cough returns but usually there is no appreciable expectoration.

In the course of streptococcal infections the development of a pleural

Address delivered before the Postgraduate Institute of the Philadelphia County Medical Society, April 13, 1937.

effusion is usually more insidious and less readily detected. As the patient is still suffering from the underlying pulmonary infection the only change in the picture may be increasing dyspnea due to the accumulating fluid. In fact there may be a large amount present before one suspects it. Aspiration will usually give a straw-colored, or blood-tinged fluid, or, if the effusion has been present for some time, it may be purulent in nature. Contrary to the rapidity with which the pneumococcal effusion thickens here there is usually a very gradual change to the frankly purulent stage. This is evidence of the slow walling off of the process.

The important feature of the staphylococcal empyema is that it apparently arises as a result of the rupture of one or more peripheral lung abscesses into the pleural cavity. These abscesses are the results of a staphylococcal pneumonia or of some embolic infection. The rupture of one of them into the free pleural space produces dramatic symptoms, with sudden dyspnea, cyanosis, tachycardia and high fever. If a valvular opening is formed and the mediastinum is not fixed the child may quickly die of a tension pneumothorax. When the discharge of pus occurs into a walled off pleural space the symptoms are not acute but usually a bronchopleural fistula will be created which will delay recovery unless external drainage is promptly instituted. These are the characteristics of the childhood type of the disease. In the adult type there is nothing characteristic.

THE diagnosis of empyema is usually easy and the aspiration of pus of course establishes it. The type of infection is of great importance and one should have bacteriological studies of the fluid made as soon as it is obtained. Although the x-ray may not be needed to establish the diagnosis it is of great importance in helping one to plan the treatment and to judge the prognosis. Also, as was noted before, the first definite signs of pleural effusion may be obtained by the x-ray.

THERE are certain fundamental factors that one must keep in mind when approaching the subject of treatment.

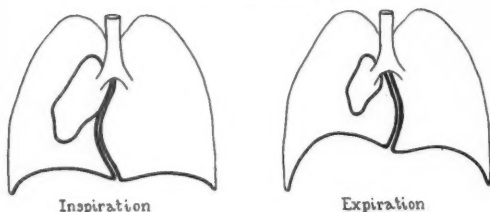
Our objects must be to save the patient's life and restore him to normal as promptly as possible. We must realize that there are the uncontrollable factors of the virulence of the infecting organism and the patient's general condition; and the controllable factor of the method of treatment. Unless these points are kept in mind no intelligent approach to the problem is possible.

That there is a marked variation in the mortality rates for pneumonia and for empyema from year to year has been noted by many reporters. Also it has been observed that these rates run closely parallel. Graham and Berck (2) in a study of the cases of pneumonia and of empyema occurring in the St. Louis Children's Hospital from 1925 to 1930 drew attention to these points and emphasized their importance in the evaluation of the results of treatment of empyema. Heuer (3) in a similar study of cases of pneumonia and of empyema occurring in the Cincinnati General Hospital from 1922 to 1930 stressed the importance of the variation in virulence of the infection from year to year. Although all of his cases of empyema were treated by the same group of surgeons using the same methods there was a variation in annual mortality from 0 per cent to something under 60 per cent. It is therefore obvious that the method of treatment is not the sole factor in determining the outcome of a case of empyema and yet one finds in reading articles on empyema that the author frequently ignores these other important factors.

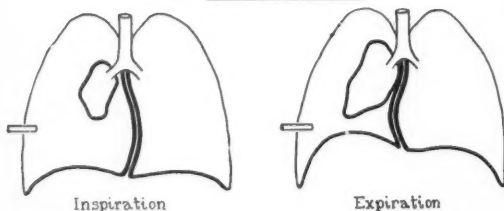
THE principle of treatment is to establish adequate drainage at the proper time and to maintain it until the lung has fully re-expanded. Except for cases of streptococcus empyema responding promptly to sulfanilamide therapy this applies to all types of acute pyogenic empyema. The manner in which this is accomplished is of great importance and the physiological factors concerned must be appreciated. For in the chest a balance of forces must be maintained and any sudden disturbance of them may end the patient's life. When an opening is made in the chest wall allowing the free inflow and outflow of air an open pneumothorax is created. If the medi-

astinum is not fixed this allows the opposite lung to be affected as well as the one within the opened cavity and depending upon the vital capacity of the individual the result may be fatal. The ability of a person to withstand an open pneumothorax depends upon his respiratory reserve, or the difference between his total respiratory capacity and the minimum amount of air required to maintain life. The great difference between an "open pneumothorax" and a "closed pneumothorax" is well illustrated in the accompanying diagrams.

Action of Mediastinum
in
A. Closed Pneumothorax



B. Open Pneumothorax



In an open pneumothorax on inspiration the mediastinum moves toward the good side and interferes with the filling of that lung. On expiration the mediastinum swings back away from the good lung and so makes its emptying less efficient. The closed type, such as employed in treating pulmonary tuberculosis, does not interfere with the function of the opposite lung unless the intrapleural pressure is raised to a point much higher than is usually employed.

When one considers the effects of an open pneumothorax it is obvious that a

person with a low vital capacity could not tolerate one. And so patients with a persisting pneumonia could not stand open drainage of a complicating empyema unless this process had become localized. As has already been stated the empyemata due to the streptococcus are slow in localizing and accordingly open drainage of them in the early stages is apt to prove fatal. This point was emphasized by the Empyema Commission as a result of its study of the disease as seen in the army camps in this country during the influenza epi-

demic of 1918. In many of these camps all cases of empyema were treated by open drainage as soon as the diagnosis had been established. In some of them the mortality reached a peak of over 60 per cent. The vast majority of these cases were streptococcal in origin and although the virulence of the infection must have accounted in large measure for the high mortality, it seems certain that the method of treatment also contributed. Since then there has been a universal acceptance of the importance of the factors involved.

EARLY drainage of an empyema is primarily undertaken to remove the mechanical handicap of the compressing fluid. This may be accomplished by simple aspiration through a needle, which should be repeated

as often as necessary to afford relief. In carrying out this procedure it is important to partly replace with air the fluid as it is withdrawn. By so doing the pressure within the pleural cavity is not suddenly changed, the fluid can be more readily removed as the pressure is not allowed to become strongly negative, and the air left in the cavity makes possible its clear delineation on x-ray examination. With the outlines of the cavity thus defined the problem of proper location of drainage is simplified. The gradual replacement of

the fluid with a slightly smaller amount of air makes it possible to almost completely empty a pleural cavity without upsetting the patient, for the change in pressure is gradual and slight. This is a very practical point and yet one that is not widely practiced.

ALTHOUGH repeated aspiration of the empyema cavity will usually suffice to control the pressure symptoms there are occasions when surgical drainage may be necessary before the fluid becomes frankly purulent. Under such circumstances a closed system of drainage should be established. This allows for the outflow of the effusion but prevents the inflow of air. It is important to clearly understand the difference between this type of drainage and the open type. There are so many different kinds of apparatus described each year for accomplishing closed drainage that one is apt to lose sight of the basic principles involved. The only real difference between them is that in the closed type fluid can flow out and air can not enter the empyema cavity, whereas in the open type fluid can escape and air can also enter. In the accompanying diagrams the fundamental differences are shown.

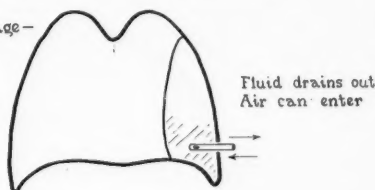
When the fluid has become frankly purulent, it will usually be safe to establish drainage by either method. For this thickening of the fluid indicates walling off of the process, a stabilization of the mediastinum and a subsidence of the pneumonia. The choice of method will then depend upon the preference of the individual surgeon. Closed drainage is cleaner than open drainage but it requires very careful supervision and confines the patient to bed. Open drainage is certainly messier but it allows freedom of movement and on the whole requires much less attention. However, the success of any method

will depend upon the person using it and provided that the principles of treatment are followed it seems to make little difference which type is used.

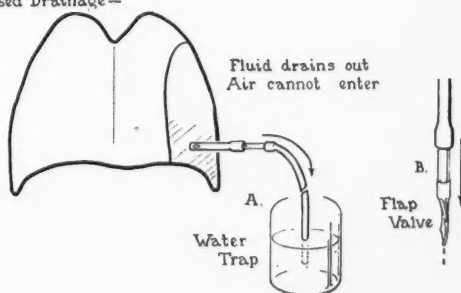
EMPHYEMA due to the hemolytic streptococcus deserves a separate consideration. As has already been noted this is apt to occur as a complication of a pneumonia rather than as a sequel. The fluid remains in a thin state for a long time; walling off occurs at a late period. For these reasons alone it is imperative not to attempt surgical

Open and Closed Drainage.

Open Drainage—



Closed Drainage—



drainage at an early stage. For a different reason it is also important to withhold operative intervention. During the diffuse stage of streptococcus infection before localization has occurred the use of the knife tends only to aggravate the process and accelerate its activity. This is an accepted observation among surgeons and applies as well to the pleura as to other parts of the body. Recently another important reason for withhold-

ing operation has come to the fore. I refer to the use of sulfanilamide. The literature is steadily mounting with reports of the use of this drug in the treatment of streptococcal infections and a number of cases of empyema have been cured without the need of surgical drainage. While it is still too early to rely entirely upon the administration of sulfanilamide, the outlook is most promising.

WHEN surgical drainage has been used in the treatment of a case of empyema it is essential that this be maintained until the lung has re-expanded and obliterated the cavity. If this drainage is adequate the lung will gradually be drawn out by the contraction of the granulation tissue about the periphery of the cavity. It has been

shown that the healing of an empyema cavity is similar to that of other defects in the body tissues. It is not necessary to blow the lung out nor to suck it out. For unless the lung is drawn out by the granulation tissue at its periphery it will not stay expanded.

IN THIS address I have said nothing about the complications that sometimes arise nor have I discussed the problem of chronic empyema. It has seemed to me wiser to limit my remarks to the general problem of acute empyema. I cannot end, however, without saying this: that chronic empyema usually results from improper care of the acute case. Although occasionally an acute case will become chronic in spite of expert care, it is generally true that healing will follow if adequate drainage is established at the proper time.

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- (2) Everts A. Graham and Maurice Berck: "Principles Versus Details in the Treatment of Acute Empyema." *Ann. Surg.*, 98: 520, 1933.
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TUBERCULIN OINTMENT PATCH TEST

ERNST WOLFF and **SAMUEL HURWITZ**, San Francisco (*Journal A. M. A.*, Dec. 18, 1937), discuss their use of tuberculin ointment in the diagnosis by the patch test of 1,000 new cases. The ages of the patients ranged from 3 months to 15 years. The results have been better than with any other percutaneous application yet employed. The agreement between the ointment patch test and the intracutaneous test with 0.1 mg. of old tuberculin in 1,075 observations was 98.2 per cent. This corresponds closely to figures previously reported for some 800 observations. Discrepancies occurred only in clinically latent cases. The ointment

test was positive in every case of active tuberculous disease. Given an ointment test which is clinically equivalent to the Mantoux, its advantages are several. The ease and speed of application lend the patch test to general use in private practice and public health work. It overcomes the objection of psychologic shock and pain caused by the use of the hypodermic needle. No false positive reactions are encountered, as a control test is an integral part of the method and the area of the skin tested is protected as a routine by the adhesive plaster. The ointment is comparatively easy to prepare, is relatively inexpensive and has been found to retain its potency for a period of at least four years.

THE REHABILITATION ASPECTS OF

Poliomyelitis

THE recent epidemics of poliomyelitis in Chicago and Canada have served to

focus our attention on the larger problem of the crippled and disabled. Fitting these physically handicapped persons into our social and economic structure has become one of the most vital problems of our speedy machine age. These disabled persons must be rehabilitated or become a permanent burden to the community.

The man in the street is familiar with the physically handicapped individual who has overcome his disability and has made himself self-supporting and independent. He is not familiar, however, with the larger number who are unable to adjust themselves either because they cannot secure work or they cannot perform work.

The child or adult who leaves the hospital after a severe attack of poliomyelitis faces life with a great deal of anxiety and apprehension.

What can I look forward to, permanent invalidism or a chance to become a self-supporting resident of the community with a real interest in life and many of its pleasures? Can I undertake physically strenuous work or must I confine myself to light work? These and many other questions, uncertainties and fears remain unanswered and unsolved and impose a mental burden that delays if it does not defeat actual social adjustment.

Society must make a choice of either assuming full financial burden of relief or asylum for these individuals or on the other hand assist or train them in remunerative occupations in order to

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Newark, New Jersey

make them self-respecting and self-supporting individuals.

Fortunately

these problems and questions can now be answered. The National Government through the States has set up Agencies known as Rehabilitation Bureaus or Commissions whose function it is to provide assistance to these physically handicapped persons in order to plan for their re-adjustment.

THE first step in any plan of rehabilitation is physical restoration. By this we mean a complete plan of medical and surgical treatment including diagnosis and the use of all the scientific methods to improve the individual to the point where he can take his place with the so-called normal individual. Cure in this sense means not only freedom from pain and other symptoms of disease but preparing the individual for useful manual and mental work according to his ability and according to his needs.

The treatment of infantile paralysis is designed for three ends:

1. The prevention of deformity.
2. The correction of deformity once it appears.
3. Restoration of function.

The prevention of deformity is accomplished for the most part by intensive application of the principle of rest. This should be interpreted as including not only rest of the involved limb but of the entire body as well and should be continued for long periods.

The prevention of deformity is further accomplished by the application of appropriate splints and by maintaining the affected extremity in the position of neutral muscle balance.

The correction of mild deformity may be accomplished by physiotherapeutic

Read before the Section on Physical Therapy of the Medical Society of the County of Kings, Brooklyn, N. Y., October 14, 1937.

methods including massage, manipulation, stretching and appropriate corrective splints. Advanced deformity requires operative interference. Tendon lengthening, capsuloplasty, and osteotomy are measures that are frequently employed in achieving these end results.

Restoration of function is achieved through a comprehensive plan of gradual and careful re-education of muscles as they regain their innervation and power. The use of under-water exercises as well as of manual massage and graded exercises and electrotherapy in selected cases is of great value in this procedure.

OPERATIVE methods are also called upon to obtain improvement in muscle balance and function. Tendon transplantation and stabilization of joints by fusion or extra-articular bone block are a few of the standard methods in use in carrying out these ends.

The ultimate goal, however, is as complete a physical restoration as may be compatible with the extent of the disease and the personality of the individual.

The second step is that of vocational guidance and training. While Rehabilitation Agencies do not consider themselves to be magicians or clairvoyants, nevertheless a large body of experience has been developed on the basis of which the physically handicapped person can be assisted in planning for his future vocation or career. An intelligent analysis of his entire background helps to provide a basis for deciding on a definite line of work.

Finally it is important to utilize all of this training in securing for this individual a place in the shop, in the factory, in the office and in general industrial life in order that he may become self-supporting.

In the pursuit of such an objective, it is important to overcome many of the prejudices that employers have and to re-educate them to the desirability of engaging adequately trained and skilled workers who, though having an obvious physical defect, have compensated for that physical defect by a full measure of productivity as well as many social attributes of loyalty, patience, ingenuity and creative effort which have been stimulated by the realization of their inferior position.

EMLOYERS frequently commit the error of undervaluing the individual's capacity to work. It is often assumed that a physical defect causes limitation of functional activity and, hence, limitation of industrial usefulness. This line of reasoning is invalid. While it must be conceded that the disability may limit the number of opportunities offered to disabled persons, it is far from correct to assume that a physical handicap always means incapacity to work.

A case in point is that of a forty-year-old painter, who, following a fall from a scaffold, suffered a fractured spine and spinal-cord injury with subsequent spastic paralysis of both lower extremities. After a prolonged period of hospitalization and after-treatment, his disability was still so severe that he was certified as totally disabled. Ten years later he appeared at the office of the New Jersey Rehabilitation Commission, seeking employment. He was able to get along with a rather awkward gait, but without the aid of crutch or apparatus. Surprised by his application, we were amazed to learn that he had been working for a period of ten years as a structural-iron worker in the construction of the tallest skyscrapers in New York. His employer, for whom he had worked regularly for ten years, had gone out of business; and although he had received excellent credentials, no one would hire him because he was a cripple.

HOW do these physically disabled persons manage to make their physiological adjustments? How do they accommodate themselves to the unusual demands made by disease or by congenital or acquired defects? The answer will depend on the presence of human safety factors. The human organism must maintain its normal function in the presence of disease or it dies. This is accomplished by drawing upon extra resources in its own structure. An individual can get along with one-quarter of a lung capacity, with one-third of a kidney, with one-quarter of a liver, without a stomach, without a large intestine. Among these safety factors one notes the excessive amounts of ferments in the digestive tract and the ability to substitute one foodstuff for another. The kidney, for example, can eliminate much

more water than it is usually called upon to do, as in diabetes insipidus. Muscles are capable of more work than they are ordinarily called upon to perform. One structure may substitute for another, such as the skin for the kidney. It is through these factors of self-repair, regeneration, hypertrophy, and vicariousness of function that the body is able to combat its environment. This rôle of adaptation in the rehabilitation of the physically handicapped is an important one. It is a biological and natural process and consists of the continuous adjustment of internal conditions.

PERSONALITY maladjustment plays an even more important rôle in the causation of incapacity to work than the physical deformity; it may be so great as completely to suppress the individual.

Conversely, the organic defect may act as a stimulus to overcompensation, so as practically to eliminate the physical defect from consideration. The majority of us are equipped with potentialities which have not been developed to their fullest extent. Yet with this incomplete development good performances are turned out, just as our ancestors produced great work with imperfect tools. It is possible for a man with defective organs actually to develop an ingenious technique to overcome the rigors of his environment. He may pay a great deal of attention to detail, devise more unerring short cuts, and undergo a more intensive training. Great and really worth-while accomplishments have been achieved by individuals through the exercise of powers requisite to meet these demands.

53 LINCOLN PARK.



FEDERAL CONTROL OF HOSPITALS

Senator J. Hamilton Lewis at a meeting of the representatives of the American Medical Association said, in effect, "whether you like it or not you must be prepared for some form of regulated medicine."

He intimated that the control would be from the federal government. How that would operate is illustrated in cities where there are naval training stations. In these locations, a naval doctor is delegated by the naval authorities to take care of the civilian dependents of the enlisted men.

In a city of 30,000 people it has been found that the average attendance at the dispensary of the naval hospital from this civilian population was twenty-three a day; the house calls from ten to twelve a day. In addition to this, operations requiring hospitalization would average two to three a week. It can be readily understood when services of this kind are furnished, the income

of the local physician is markedly affected.

Specifically, if one-half the dispensary cases paid, and that is a fair average, it would amount to about seven thousand dollars a year; one-half of the house cases would mean an income to the doctor of about ten thousand dollars. It is difficult to apply any average to operations but it can be estimated not less than five thousand dollars a year so that it would aggregate close to twenty-five thousand dollars a year. This amount is taken out of the income of the civilian practitioner.

It is true that this is a service to the enlisted personnel, but if the same services are given to the citizens at large the income of the local doctor will be diminished.

What is to be done? Unless the physicians as a whole give this question serious consideration, and adopt a method agreeable to all, it is believed the government will step in and make plans whether the doctor likes it or not.

Editorial: Rhode Island Med. J., Dec., '37.

Hydrogymnastics

IN THE PHYSICAL THERAPY OF POLIOMYELITIS

THE principle on which under-the-water exercises are based is old, simple and well known. Archimedes' principle is one of those brilliant deductions that was inherited from the Greek philosophers. Every school boy of today knows that "a body submerged in water will lose as much weight as the weight of the water displaced." Hydrogymnastics is the first practical application of this physical law in therapeutics, and it has taken the profession 2,000 years to apply it. Everybody has experienced the difference of weight in the water, and out of it. If the body is immersed in water it requires very little effort to try to raise an extremity, but when the movement is continued out of the water, the extremity feels heavy.

The action of gravity on the body varies, for when a body is placed on a table, the gravity is expressed in the pressure of the weight-bearing parts on the supporting table, i.e., where the body is in contact with the table. A patient lying on his back on a table can perform only two types of movements: away from the table, which is a one hundred units' effort, or sliding along the table, by which he has to overcome the friction of the table. The same body submerged in water can move an extremity in all directions, and the resistance is about equal in all planes. If one lower extremity is to be treated, it will encounter almost the same resistance whether it is moved downward, upward, or sideways. This means, for example, that the extensors, flexors, abductors, adductors, and internal and external rotators of

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the hip can be exercised and graded against an equal resistance.

Although the physiological effect of exercises is fairly well recognized, we cannot neglect the mental effect of under-water exercises.

The psychological effect of any therapeutic agent is always dangerous ground. A well balanced opinion must recognize it in every treatment. In dealing with children, and especially crippled children, it should not be underestimated. A child's main activity is play. When he is robbed of this occupation, he is a most pitiful figure. It is a problem to guide the sensitive child over the transitional stages from a bedridden invalid to a new, somewhat limited life. Here, the therapeutic pool, properly used, fills an important gap. The lethargic crippled child who has been confined to his bed for many a long day begins to take a new interest in life, and if this new interest can be transformed into beneficial activity, half the benefit of treatment is gained.

BEFORE any treatment is started, it is necessary to have a true record of the patient's residual weakness or paralysis. In the *clinical test* I use the classification of Lovett and, when possible, compare the affected and healthy limbs.

Class one is a normal muscle. There is no difference in function between two corresponding muscles.

Class two includes good muscle function; it can overcome gravity, and some resistance.

Class three includes fair function; it can overcome gravity.

Read before the Section on Physical Therapy of the Medical Society of the County of Kings, Brooklyn, N. Y., October 14, 1937.

Class four includes *poor* function; the muscle can overcome friction of a joint.

Class five includes a *trace* of function, and the muscle fibers contract, but no movement is produced.

Class six is *total paralysis*.

This classification gives a sample record of the extent of paralysis and, if carried out by the same examiner, will also give a reliable record of improvement.

IN dealing with muscle re-education, five connecting links must be visualized which form the chain of events resulting in muscle function. The *first link* is the brain impulse, which starts everything. The concentration that is put into this impulse corresponds to the voltage or pressure of the electric current. To effect the maximum of concentration, it is important to treat the patient in such surroundings that nothing can distract his mind. Individual treatment is preferable. The enthusiastic encouragement given by a sympathetic technician who understands children is very important. The sluggishness of the brain impulse results from inactivity during the acute illness.

The *second link* is the conductive path of the impulse. This involves the upper neuron, the anterior horn cells, and the lower neuron. The pathology in infantile paralysis consists of an inflammatory process about the anterior horn cells, followed by round cell infiltration, and partial destruction of these horn cells. When impulses are repeatedly sent over certain nerve fibers, their synapses, and horn cells, the connection seems to improve, the resulting muscular contraction is more perfect, and there is better coordination in the function of such contraction. This coordination depends also on a *third link*, the muscle itself. Whatever the phenomenon is that produces the muscle contraction, it is known that the impulse reaches the muscle tissue at its myoneural junction, and that the muscle fiber has the property of contractility, and of tonicity. This response of the muscle to the nerve impulse varies and can be trained. The nutrition of the muscle somewhat determines the response to stimulation. The application of heat and massage is therefore important in the after-treatment of residual paralysis. If a hypo-

thetical muscle with 100 corresponding horn cells is taken, and the contractility called 50, it is known that an impulse transmitted through the 100 horn cells will produce a maximum of contraction of 50. If 50 horn cells are destroyed, in order to get the same contraction the contractility must be doubled to 100.

The *fourth link* in the connection is leverage. Most of the muscle function is leverage action. It is important not to discourage a patient by asking him to perform a movement that he is unable to accomplish. To avoid this the patient should be placed in a position that is favorable to leverage. For instance, in the training of a deltoid muscle the standing or sitting position, with the extremity hanging down, is unfavorable to the leverage. The patient should be placed on his back with the upper extremity 45° from the body. By so doing the shoulder girdle is fixed and the power, as represented by the deltoid, must carry weight of the upper extremity through an angle of less than 180° with the fulcrum in the shoulder joint.

The *fifth link* is a very essential one and deals with the effect of gravity on muscle function. Exercises may be divided into those working with gravity, those in neutral position, and those working against gravity. If flexors of the wrist are being dealt with, they may be exercised with the elbows on a table, and the forearm held vertically. Thus gravity is employed. However, with the forearm resting on the table, flexion of the wrist has to overcome the friction of the table. When the forearm hangs down next to the body, a contraction of the wrist flexors must overcome gravity. It is evident that it requires more power in the wrist flexors in this position than in the first one described.

Any exercise in the early stages of *poliomyelitis* must be gentle and of short duration to prevent fatigue. Care must be taken not to over-extend a weakened muscle: always look out for contractures.

The under-water exercises can be performed in a bath tub, or in a special tank. For home treatment I usually recommend a circular tank of galvanized iron, 6 ft. in diameter, and bought at Sears Roebuck for \$25.00.

Construction and Care of Equipment

WHEN a pool is thought of, usually a sunken basin is visualized, and some therapeutic pools are constructed this way. However, badly paralyzed patients, or patients with painful joints, have great difficulty in entering or leaving such a pool. This disadvantage can be overcome by an overhead track or pulley carrier, which picks up the patient and the top of the stretcher, carries him to the pool and lowers him into the water. Such installations add greatly to the expense of a pool, which is, in any event, very expensive. If the pool is built up from the floor to the height of a stretcher, a patient can be taken in or out very easily. In difficult cases, the patient is lifted on the top of the stretcher. A convenient size for a hospital pool is 26 ft. by 12 ft., with a sloping bottom the depth of which is 4 ft. at one end, and 2 ft. at the other end. The pool is built with reinforced concrete, covered with tile; it is useful to have non-skid tile on the bottom.

Since most of the movements consist of leverage action, some "point of fixation" must be obtained. When the lower extremities are exercised, the trunk, and especially the pelvis, must be fixed; and when the upper extremities are treated the shoulder girdle must be fixed. Therefore, the construction of the pool must be such as to afford fixation, either in the shape of a ramp, or steps in the wall of the pool. The edge of the pool should give support of the hands or feet. Plinths may be used under the water for this purpose. The best material for pool apparatus is Monel metal, which does not change by constant contact with the water.

Heating, Filtration, and Sterilization

THESE are best carried out on the water in a special room. One of the most essential parts in equipping a pool is a proper purifier for the water. Much money can be wasted if cheap equipment is used. A filter, a coagulum, and a sterilizer constitute the most complete equipment. It is well to have a pressure filter containing coarse gravel and fine sand.

The actual treatment is preceded by the training of breath control in the

water, which is essential for new patients. The half-hour treatment is divided into muscle training and applied exercises. Thus, when a lower extremity is treated, the patient goes through the functions of the hip, knee, and foot; and applied exercises such as walking or the swimming kick bring out the co-ordination of all these movements.

When to Start Treatment

BEFORE the epidemic of 1931, we used the rule not to start any after-treatment until all tenderness of muscles had disappeared. During this epidemic we started this treatment when the patients were discharged from quarantine; usually at the end of three weeks. We found that no bad effects ensued from this earlier treatment, and that tenderness disappeared in the water.

How Long to Continue Treatment

MOST of the functional return in the residual paralysis takes place during the first six months, but even up to two years we find some improvement. In later years under-water exercises take the place of recreational activities, i.e., swimming, and water exercises take the place of golf or tennis, etc., in the normal individual.

Conclusion

THE residual paralysis of poliomyelitis should be carefully watched. Splintage should be applied early to prevent contractures. The exercises we use for re-education of muscles have nothing to do with swimming. They are special exercises performed with the cooperation of the patient by specially trained technicians. These technicians should be graduates of a physical education college, with at least one year of training in an accepted physical therapy course.

Water of 90-95° F. should be used in either a tub, tank, or pool.

A chart of the muscle power of the patient should precede the treatment and be repeated at regular intervals. These hydrogymnastics should be kept up for two years after the acute attack. They should accompany the orthopedic treatment, and should be under the supervision of an orthopedic surgeon.

33 EAST 61ST STREET.

MENTAL HYGIENE NOTES

THE referring family physician formulated the complaint problem as periodic seizures resembling epilepsy. The parents wanted help for spells in which the patient would stand rolling the eyes upward with a tendency to staggering. This caused the parents to fear danger of automobile accidents. Both at home and at school he was thought to be indulging excessively in spells of day-dreaming. Acute and painful swelling of cervical glands at the time of consultation was a secondary complaint.

Patient was in his usual health until one and a half years ago when he was first noticed to roll his eyes back for a second. "If one spoke to him or touched him he came out of them." Little attention was paid to these attacks until the summer of 1937 when they became more frequent, four or five while at home. He cannot tell when he is going to have an attack, does not "have feeling" during the attack, but can tell afterwards. Coming out of an attack he may say "what", thinking someone spoke to him. However, he usually picks up the thread of conversation after a spell. Seizures are more frequent when he is tired or excited. There have been no unfavorable reports from school with the exception that children at times tease him by saying that he is in a daydream. The family physician has prescribed mineral oil for constipation; also two bottles of medicine last July but neither of these has altered the course of the illness. The mother gratuitously "wormed" him, thinking

this might help, although there was no evidence of worms.

THE boy is an only child, adopted at the age of 15 months. Full term, non-instrumental birth. Bottle fed. Had

convulsions while cutting teeth. Walked at eight months; talked at one year. He was always nervous — "easily excited, perspired a lot." Unable to eat spinach without nausea and vomiting. Until 1½ years ago eggs caused a rash. He enjoys the reputation of "a great meat eater, crazy about hotdogs, bologna and liverwurst";

also very fond of salt, catchup, water, milk and candy. At breakfast he enjoys a drink composed of two tablespoonfuls of coffee to a glass of milk. At school he has a mid-morning glass of milk; lunch at school consists of jelly and peanut butter sandwiches and ½ pint of milk. Supper offers him two glasses of milk, vegetables (which he dislikes), meat and dessert. Circumcision three years ago; tonsils and adenoids taken out about same time. Suffered measles, whooping cough, and chickenpox without sequelae. Entered kindergarten at age four; now in third grade. Teacher says he could do more work if he would stop some of his fooling. Mother states he is "a little devil". Occasionally gets a "licking" for staying out too late at night. Enjoys movies once a week, occasionally having a seizure there if he gets too excited. Takes mineral oil each night to assure a daily bowel movement.

Patient's own parents are well, but

CASE NOTES IN EXTRAMURAL PSYCHIATRY

Case III: Petit Mal Epilepsy In A Nine-Year-Old White Male

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the mother is said to be very nervous and stubborn. Foster parents are of average intelligence and wholesomely concerned about his welfare.

PHYSICAL examination reveals a well nourished boy of average size, well developed except for rather marked flattening of the skull just above the occipital region. Head circumference 52 cm. Height 53 inches. Weight 75 lbs. Pulse 76. Temperature 98.2. Respirations 18. Palate highly arched with projecting soft palate. Upper chain of cervical glands much swollen and tender so that it was painful to open mouth. Parents feared he was taking mumps. Tendon reflexes were increased, otherwise neurological examination was negative. Blood Wassermann, urinalysis and x-ray of skull negative for significant findings.

Mental examination showed a restless, impulsive but cooperative, happy child of florid complexion. Admitted he deserved an occasional spanking for staying out late. Sleeps alone on a day bed in his own room. Binet-Simon examination gives a rating of M.A. 7 yrs., 6 mos. I.Q. 84; range 5-9 yrs.

Diagnostic formulation: Petit mal epilepsy in an emotionally unstable, mentally retarded (borderline intelligence) boy of nine years, at present additionally suffering from acute cervical adenitis. Prognosis, although must be guarded, should be good for eradication of seizures and adjustment of personality in effectively socialized ways.

Treatment should be directed toward removal of seizures through medicinal help, removal of environmental stress and strain, both physical and mental, regular habit formation, and critical discrimination with respect to diet, sleep, play and study in the light of a planned 24-hour daily schedule of living. Chief of medical lifts is sodium bromide. This should be given daily in gradually increasing dosage from twenty grains to sixty grains, if necessary, to abolish at-

tacks; preferably given in a mistura containing Fowler's solution minim one, and fluid extract of glycyrrhiza minims 30 to each dose after breakfast and the evening meal. Step-ups in bromide may be given every two weeks provided signs of bromide intoxication (severe acne, sluggish intellection, drowsiness, and rarely delirium) do not develop. This latter condition may be corrected by withdrawing medication, adding sodium chloride to the diet and also giving it in fluid form, increasing fluid intake, and taking care of constipation. Although one may through trial dosage arrive at the minimum amount of bromide which will keep the patient free of seizures, it is best to have a monthly determination of the level of blood bromide. This should not exceed 250 mgm. per 100 cc. of blood.

The elimination of seizures may be furthered by giving phenobarbital (luminal), grains $\frac{1}{2}$ to 1 twice a day, although this drug is not so effective in petit mal as in the grand mal type of epilepsy. After seizures have been controlled for a month on the combined bromide-phenobarbital medication, the luminal should be gradually decreased in dosage and finally withdrawn, leaving the bromide to keep the patient free of attacks for at least two years before it is also gradually withdrawn.

THE diet should be generous and well-balanced, but over-eating is to be avoided. There should be plenty of fruit and vegetables, but a partial restriction of meat, eggs, milk, salt, candy, water, and no coffee or catchup. Avoid salty foods. Encourage a high fat intake in the form of butter, olive oil, and cream. Correction of constipation should be through regular habit training at stool, utilization of prunes and bran cereal; rarely cathartics.

Excitement and fatigue should be reduced to a minimum at home, school and in recreational pursuits. Take time to explain all procedures, and make no abrupt changes in his program. Do not hurry him in studies, and competitive elements should be discouraged. Regular habit formation in chores, study, play, rest, diet, and sleep are essential.

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Cancer

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AT THE present time the survey of the cancer situation in the State of New York is a subject of particular interest. Briefly, a temporary commission appointed by the Governor, consisting of three senators, three assemblymen and three physicians, has undertaken to determine the prevalence of cancer in the State and the facilities for its treatment. A subcommittee on Survey, of which Dr. Russell S. Ferguson is the chairman, has sent questionnaires to practicing physicians and to hospitals throughout the State.

It appeared to us to be worth-while to look into the findings of similar surveys, reported in the periodical medical press, in order to determine the results elsewhere.

In the New York State Survey the commission is trying to determine the cancer morbidity. The literature contains few papers on this subject. On the other hand, there is a large literature concerning mortality.

According to the excellent article by Stupening (1) published as recently as July, 1937, it is stated that nowhere in the world has cancer been made a reportable disease and that therefore all efforts at answering the question of morbidity are in the most elementary stages. However, Rector (8) in January, 1936, that is, a year and a half earlier, remarks that morbidity statistics in general are wanting, in spite of the fact

that at the present time cancer is a reportable disease in eleven states. He does not name these states but in his list of references he notes surveys of Michigan, Iowa, Kansas, Missouri and

Wisconsin. We do not know whether cancer is reportable in any of these except Wisconsin, for Henika (9), the deputy state health officer of Wisconsin, in a special article in the state journal deplors that "Many physicians are not reporting their cancer cases

as the law provides." And "Many of the reports received are so poorly filled out that they are of little use in making a study of cancer." He regrets that the reports often fail to give the interval between the first suspicion of cancer by the patient and the visit to the physician, and the time interval between the first diagnosis and the starting of treatment. It would be a matter of great interest to know just how well the eleven states, in which cancer reporting is required by law, are managing.

AS EARLY as the year 1908 in Denmark a most careful investigation into cancer morbidity is reported by Fibiger and Trier (2). Practically every doctor replied to the one simple question as to how many cancer patients were under his care as of a given date, April 1, 1908. By the use of the telephone actually 99.0 per cent replies were tabulated. It was found that there were 43

Cancer SURVEYS

per 100,000 ill of cancer. Yet the death rate stood at 134 per 100,000 for quite a number of years at this very period. The inconsistency is only too apparent. It is hard to account for such a wide discrepancy as these figures imply. Surely the number ill of such a chronic disease must greatly exceed the annual death rate.

A ratio of 3:1 between morbidity and mortality seems to be assumed by a number of authors. Rector in the article (8) just cited gives a tabulation on this assumption. Dublin (10) in his address at the Second International Cancer Congress at Brussels, in September, 1936, seems to use a ratio roughly similar, for he refers to the deaths in the United States as 150,000 annually, and says that it appears that there are not less than one half million persons afflicted with cancer in the United States. Dublin appreciates well that no degree of accuracy can be attained for only "scattered surveys of the incidence of the disease have been made in a few circumscribed areas."

NOW let us turn to Switzerland for a similar discouraging note in a report by Grüneisen (3) to the effect that however little is known with certainty regarding cancer mortality, the knowledge of cancer morbidity is incomparably less.

In England and Wales almost half of the occurrence of cancer falls on the population aged 65 or more years according to Cramer (11). Cramer makes the striking assertion that cancer occurs in about one in 100 persons among aged people, while in the remaining population it occurs in fewer than one in 1000 persons. He further says that international cancer statistics give little support to the idea of racial differences in the susceptibility to cancer generally. The differences that do exist are differences in frequency with which the various sites are attacked in different races. This difference may be accounted for by variations in habits, customs, and external conditions.

Perhaps the approach in the New York State questionnaire may prove valuable, because of the interrelated questions. The simplest inquired as to the number of cancer patients under

care as of a given date, similar to the question in Denmark in 1908. But another question referred to the number seen by the physicians during the space of a year. Finally, a third point of view may be clarified by the question as to the number of patients seen during the year at first suspected of having cancer who did not prove to have cancer. Unless the doubt was completely and absolutely removed by biopsy and other study, this category may well include cases which will ultimately have to be classified as cancer.

IT IS now some eight years since

Francis Carter Wood (4) urged that cancer be made a notifiable disease. Subsequently, Macklin (5) in Canada, in discussing cancer, advanced the idea that it was the obligation of government to collect various clinical data and establish something in the nature of a clinical investigative bureau for cancer research. Just how reliable such morbidity and clinical statistics might prove to be is open to some doubt. If eleven states have really embarked upon this course it ought to be evident by now what mistakes are to be avoided. It ought to be known to what extent the profession cares to cooperate in reporting details which are much more searching than has been attempted in any of the contagious diseases. Our remarks are not to be interpreted to mean that the experiment of collecting such statistics should not be made, for with proper cooperation much good might come from the effort. This reporting might hurry the decision in suspected cases, by the application of all the modern adjuncts to the diagnosis of malignant disease. In addition, it might lead to more attention being given to unrecognized disease, in the desire to clarify the diagnosis, even when actual cancer is not at first suspected. In an interesting paper Fischer (6) shows that cancer is often masked by other symptoms and unsuspected until autopsy, when over 20.0 per cent of cancer of the brain, the lung and the bladder was revealed. Stupening (1) also asserts that even with modern facilities 20.0 per cent of cancer is missed until revealed at autopsy. Thus, compared to making cancer reportable, there are additional

valuable avenues of approach such as postmortem study in a greater number of instances. Although the autopsy rate in Germany is about 5.0 per cent, Fischer in the same article reported for the city of Rostock, on the Baltic, a remarkable number of autopsies, namely, 90.0 per cent in the hospitals and actually 43.0 per cent in the general population. During this nine year period there were 13,512 deaths and of these 5,889 were autopsied. It is interesting to note that, of these, 815 were due to cancer. Were such an increase in autopsies attainable generally, there is no doubt that great light would be shed both upon mortality and morbidity.

In concluding these remarks we wish to refer to one more item. When the New York State Committee of the American Society for the Control of Cancer began its continuous educational program in 1926, one of us (7) sent out a questionnaire designed to estimate the facilities for the diagnosis and treatment of cancer in the fifty-four up-state counties. The questions submitted to the superintendents of the hospitals were as follows:

Will your hospital admit cases of cancer?

(a) For operation in early stages?

(b) Late cases for operation?

For x-ray treatment?

For treatment with radium?

(c) Cases of chronic cancer complicated with sepsis, which require frequent surgical dressings and a comfortable place in which to die?

(d) If you admit patients in class C, how many beds are available in your hospital for such cases? Are they situated in Wards? Semiprivate Wards? Private Rooms?

(e) If your hospital is equipped to give x-ray therapy for cancer, please in-

dicate the character of the equipment including the maximum voltage your transformer will give.

(f) If your hospital is equipped to treat cancer with radium, please state how much radium you own or whether you apply radium emanation.

Replies were received from 75.5 per cent of the hospital superintendents to whom the questionnaire was sent. As a result the following comments were made.

(1) The cancer patient, in the early stages of the disease, can be adequately cared for in the fifty-four up-state counties.

(2) When cancer has reached a more advanced stage and for cases of recurrent cancer the opportunity for adequate hospital treatment is reduced by a little over fifteen per cent, and then the patient is looked upon with some suspicion and begins to be undesirable.

(3) The opportunity for hospital treatment of the final stage of a case of cancer is definitely limited; a little more than forty-five per cent of the hospitals that will admit early and late cases will admit the chronic case. This is the period in the life of the cancer patient when sympathy and philanthropy are needed and in which they are likely not to be found.

(4) The facilities for deep x-ray therapy are limited. No such facilities are available in thirty-eight up-state counties.

(5) The facilities for radium treatment are also limited; no radium being available, except purchased emanations, in thirty-nine counties.

(6) There is definite indication of the desirability for standardization of the equipment to be installed by a hospital in which deep x-ray therapy is to be given.

The situation today, ten years later, may be definitely improved.

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MEDICAL JURISPRUDENCE

FREQUENTLY we hear the assertion that crime is a disease and should be treated as such. These utterances come from unauthoritative sources; from people who are lacking in both cultural and practical knowledge and understanding of the obvious in criminology, that crime is and always has been a normal human reaction.

However, those who shout the loudest are frequently those who jump at conclusions rather than who seek the truth in its mysterious hiding places, and seeming to find it, verify its identity by logical processes. An empty kettle makes the most noise, and therefore commands the most attention. Sensational journalism grabs this sort of stuff and carries it on to hosts of non-thinkers, who accept it as a fair criticism of our present highly developed criminological system.

So the cry is heard, "Away with prisons! Call in the doctors! Give the criminals some medicine. Or better still, rush to the refrigerator and get some biologicals. A shot of this or that will reach the right gland, and will change the criminals' habits and personalities."

To the initiated this is all rubbish. Give the average criminal a clinical examination, and nothing wrong will be found with him, save possibly venereal disease. Listen to him with a stethoscope, thump him on the lungs and liver, palpate him, reflex him, and whatnot; ex-

amine him psychiatrically; give him a Binet-Simon. What do you find? Sound, absolutely sound. With this all 'round negative diagnosis as a start, what is left for a doctor to do? Without physical or mental ill, how can we be expected to apply therapy.

THE first error of those who call crime a disease is that they do not understand the essential difference between the two. Crime is crime because of man-made laws; but disease is disease because of something as to which man has no say. What is a crime today may not have been a crime yesterday. What is lawful today may be made a crime tomorrow. Are new pathologies created concomitantly with the constant flux of legislative fiat? Most of us commit crimes with-

out knowing it. During prohibition nearly all of us committed crimes while perfectly well knowing it. It is a crime under Federal laws to send by mail a check for less than one dollar. That gets us all in. Are we, then, all diseased? Equal suffrage in England was won by organized acts of violence. There was much mobbing and property damage. Finally the harassed legislators and ministry surrendered. It was too much of a strain trying to put down these man-made crimes by imprisonments which involved forcible feeding of hunger strikers, so they gave in. Yet does anybody venture to say that the persevering heroism of the women who brought about this great reform was a mere pathological or psychiatric symptom?

Crime IN RELATION TO MEDICINE

HON. FRANKLIN TAYLOR

Judge of the Kings County Court

Brooklyn, N. Y.

Address before the East New York Medical Society, Brooklyn, N. Y., October 11, 1937.

I say without fear of controversy that our liberties are built upon a foundation of resistance to bad laws. Does that mental attitude make me a subject for medical or psychiatric treatment?

MOST crime consists of criminal violations of property rights; in other words of stealing in some form. But who makes property rights; God or man? And who is to say whether present accepted beliefs as to property rights are right or wrong? As I have said, what is stealing today may have been lawful yesterday, and may be again lawful tomorrow. It is all a question of present legislative viewpoint, and that is wholly based on present social expediency.

In the most primitive civilizations of the past, when men were hunters, property right was limited to possession plus use; or to occupancy. A man possessed but few personal effects and, aside from his hut and immediately occupied environs, could have no ownership of land. There were no accumulations. All people were poor. Later on, when men were shepherds, accumulations began. One man had more sheep than another. Some had none, but worked for those who had. The so-called right of property was extending its scope, even though land was still public domain, the sheep and cattle being guided from common pasturage to common pasturage. The man who had the most accumulations was the natural chief and arbiter of his tribe. If anyone disagreed with the right of sheep and cattle accumulation and carried his dissent to the point of helping himself to another man's livestock, he was brought before the chief and criminally dealt with. Thus was crime invented. Later on, when civilization became definitely agrarian, and large sections of land were cultivated not for personal feeding, but for the purpose of selling or bartering the produce, the idea of land ownership began to take definite shape; because all others must be kept off, even when the land was not presently under cultivation. Simultaneously, land itself, at one time public domain when not under immediate private occupancy and cultivation, became the subject of barter and sale. Along with this came sheriffs, judges, lawyers, prisons and whatnot, because the right of private accumulations having developed

to this point, those who had much required protection from the hungry hands of those less fortunate. This is our present capitalistic structure. There are many who disagree with it, although it has for ages been generally accepted as the most expedient. It is the reason for our criminal laws against thefts, and is entirely independent of the things with which medical science has to deal.

CRIMES of theft are economic in both origin and development. They are due to contrasts between the rich and the poor. The former have no motive to steal, but there are among the latter vast numbers who refuse to accept the admonition to work or starve. They do neither; some because they are lazy, some because denied employment, some because just naturally dishonest. In the last class we have a character trait which may be purely congenital. One born to a life of wealth and ease is under no temptation to outright crime, but one born to a life of economic pressure is under constant temptation. In a litter of pups there are no two of like disposition. The trainer must study the character traits of many before he picks an animal apt for training. Similarly with the human race. No two persons are exactly alike. Black sheep appear in the best families.

As the poorer classes are ever handicapped in economic opportunity by difficulties in the way of education and social contacts, so must they be under temptations which extend beyond the ranks of the unemployed, and into the strongholds of employed but underpaid workers. There is a point at which a worker loses hope, and feels a sullen undercurrent of rebellion against being denied all save bare necessities. Here is found a frequent cause of criminal downfall.

CONCERNING mental defectives the crime scale falls naturally on the side of poverty, because adding the handicap of moronism to that of economic disadvantage there is greater difficulty in the way of employment and less intelligence to work against the temptation to steal; therefore the many morons who are brought into the criminal courts for crimes of dishonesty. These people are not mentally diseased. They are simply mentally retarded. They form a fair per-

centage of the total number of people who commit crimes. Few of them rate as imbeciles. A large number are not of sufficiently low mental age to be acceptable in Napanoch. For the latter there is no alternative other than by penological disposition. They become easy subjects for recidivism. That prison segregation would be a wise course with this unfortunate class, seems to admit of no doubt.

Stealing may, of course, be due to mental disease, but these cases are rare. The usual psychiatric tests are applied in suspicious cases, and if psychosis is ascertained, the defendant is not subjected to conviction. In any case, whether a lunacy commission be appointed or not, a defendant has a right to raise the lunacy issue at his trial.

The law, however, refuses to accept the medical definitions of insanity, and establishes the rule that even an insane person shall be convicted, unless at the time of the alleged offense he knew the nature and quality of the act and that it was wrong. Whether or not this is a wise rule is debatable. It assumes that to be an insane act there must be no knowledge of its doing. This is wrong, because the lunatic, if I may still use that obsolete term, often has a pretty good memory and understanding as to just what he did. Yet here we have the law pulling one way and the doctors the other. The law is afraid to trust the doctors lest they go too far. It seeks to avoid confusion of juries by alienists who will call anything insanity as long as it serves their own pockets. At the same time, we may well inquire, is it wise to decide medical questions by legislation? Would it not be better to take a chance on the occasional fooling of a jury, than to subject to penal servitude one who, from a medical standpoint, was wholly unaccountable for his act?

Let us leave this question for the present.

THUS far I have addressed myself to crimes involving so-called property rights, and have endeavored to show that psychosis as defined by statute rarely enters and that mental defect, which does not involve psychosis at all, rarely justifies commitment to institutions for the feeble-minded.

We now come to crimes of violence and sex offenses. Here is found a more fertile field for mental disease, definitely ascertainable and in many cases appropriately controlled.

Crimes of personal violence, not involving violation of property rights, frequently stand out against an otherwise clean social record. Even the murderer is likely to be a first offender. At the same time many people are assaultive by disposition, and have substantial criminal records along that line. These people are frequently honest and law-abiding so far as property rights are concerned. Their weakness is usually emotional instability, occasionally with constitutional psychopathy. Many, however, are cold-blooded. The underlying cause, in non-psychotic cases, is usually some kind of grievance, either real or plausibly imaginary.

Most people are well controlled. They may be trained to avoid or to suppress emotional reactions; or they may live by a healthy philosophy which takes care of that for them. Many fume and rage, but let it go no further than vocal expression. Those whom the law has to do with are those who overstep the line. In days of old assault and mayhem were merely private grievances, but later they became recognized as crimes on the theory that they disturbed the king's peace and imperiled the king's right to the service of sound men in his army.

AS to crimes of violence being generally due to mental disease, there appears no basis for so broad a statement. Anger, hatred, envy, jealousy, etc., have always been recognized as normal attributes of life throughout the animal kingdom. The *Genus homo* is no exception to the rule. The question which medical science has to do with, is whether or not, in a given case, they are a normal expression, considering the emotional makeup of the individual. If so, there is no mental disease. If not, the answer may be otherwise, possibly due to narcotics, alcohol or insanity. If mental disease of a character involving symptoms of assaultiveness is ascertained, the defendant should have the benefit of the doubt, even though his act otherwise appears to have been a mere normal expression of human passion; because with both hypotheses pres-

ent, one indicating guilt and the other innocence, who has the right to condemn?

On the question of abnormal and unaccountable assault I recall the knifing of an American born Italian boy by his Italian born uncle. The thing happened suddenly, not a word being spoken. No cause was revealed. Previous relations had always been friendly. The uncle, however, had for long been addicted to Italian red wine, to the point of chronic alcoholism. He alleged an amnesia as to the knifing. He had no history as a manic-depressive, in fact nothing previously of either criminal or psychotic nature. There was a suspicion of Marchiafava's disease, and on this basis a lunacy commission was appointed. Marchiafava's disease is peculiar to the Italian race. It occurs among heavy drinkers of wine and is possibly due to the excessive absorption into the brain tissues of some toxic substance peculiar to new, unsettled wine. The psychoses are periodic and may be assaultive. Autopsies reveal extensive brain lesions. The disease is slowly progressive, sometimes with long periods of apparent arrestment, but is eventually fatal. If this defendant was so afflicted it was advisable that he be thereafter under institutional restraint. However, the commission met, went through its usual formula of psychiatric examination and hearing of witnesses, and pronounced the defendant sane. As a result he was tried, acquitted, and is back on the community, although I am still inclined to the original supposition that it was Marchiafava's disease. For recent literature on this malady I refer to an article by Drs. L. S. King and M. C. Meehan in *Archives of Neurology and Psychiatry* for September, 1936 (36:547-568).

PROBABLY the most frequently met type of assaultive psychosis that confronts the criminal courts is paresis in its early stages. These cases occasionally may be recognized by any judge who has had substantial experience in the examination and commitment of lunatics in civil proceedings. I need not go into the visible symptoms before this learned body. Suffice it to say that when checked up by lingual slurring, syphilitic history, and characteristic nature of the crime, they justify appointment of a lunacy commis-

sion with authority for lumbar puncture and laboratory report thereon. In these cases the assault is frequently by revolver, knife or bludgeon, and is without adequate provocation. Many commitments are made as a result of commission findings. The county is saved the expense of trials, and insane defendants are saved the injustice of conviction.

Once in a while, however, we see reports that are difficult to understand. For instance, in one case where the facts of the alleged crime were in themselves sufficient to indicate psychosis, and the report on lumbar puncture was 4 plus, the commission report was "paresis without psychosis." Apparently the commission thought it needed evidence of psychosis *dehors* the facts of the alleged crime, which were, to my notion, sufficient on that point. In another case a lunacy commission reported a defendant sane, and he was remanded for trial. Two weeks later the man died in his cell, the cause of death being set down as "paresis." How a case so far advanced managed to elude an affirmative finding, I have never been able to puzzle out, unless the mental examination failed to reveal psychosis; yet I think that alienists in general have come across cases of fully developed brain syphilis where the mental examination has been quite unrevealing.

MANIC-DEPRESSIVE cases present a fairly frequent defense to charges of crime, but many of these subjects are placed under arrest and hospitalized while still in the throes of attack, and therefore escape indictment. In my experience this defense has been frequently put forth in murder cases; but strangely to say, the element of preparation, and the apparent normality with which the crime was enacted, belie the defense. Juries are not, as a rule, impressed by this type of defense when the circumstances of the crime run true to form. In one case of wife shooting, because of nagging during a depressive period which had a normal producing cause, five alienists for the defense, including a city alienist, testified that the man was insane. Although the District Attorney put no alienist on the stand, the jury convicted. In another case, where a man shot his former mistress because of a jilting, the same defense was interposed. The man

had been for long a chronic alcoholic. He had habitually indulged in sexual perversions. He had delirium tremens following his arrest. Here again the jury convicted, apparently because everything had run true to form. In that case an interesting bit of testimony was given by an alienist for the State, to the effect that a manic attack is invariably directed against anybody who happens to be in sight, and never against the subject of a specific grievance. Many of us will disagree with this, of course, knowing of the many instances where the attack is devoid of delusional or hallucinatory quality, such as in the manic killing of wife and children. Of course, many manic outbreaks are quite as this physician testified. I happened to witness one, where the subject wielded a knife, cursing and slashing at imaginary persons. Although but a few feet away I seemed to be unobserved during the period of the attack, which was thereby shown to be hallucinatory.

IN the case of seniles, the crime is apt to be one of violence or of sex; frequently the latter. Apparently the arterial metamorphosis causes a let-down of the inhibitions. The subject may become irritable and assaultive, or he may manifest sex perversions which had been theretofore latent and under control by the inhibitions. Indecent exposure, impairment of juvenile morals, and even full sex perversions may be found in these cases. When an apparently elderly person, with a previously clean record, is indicted on a charge, either of violence or of sex perversion, it is well for the judge to look into the possible senile phase, and to order a mental and physical examination if the facts seem to so justify.

Concerning sex crimes against children, the situation is unsatisfactory. Even habituals are reported sane and are remanded for trial and punishment. The medical viewpoint, as I see it, is that sex psychopathy is a mere mental habit. I wonder if we are right about that. Are we really not admitting that we are baffled by tradition, by our lack of successful scientific exploration along that line? Have we as yet done more than to scratch the surface? Should we not suspend judgment on the psychiatric

question and approach it again as an unsolved problem, upon which the light of medical science must be turned to its full extent, in an effort to know the solution? These crimes when committed by mental defectives are understandable, because there a child mind directs an adult body, and normal adult inhibitions are therefore lacking; but what is it that destroys the inhibitions in men who appear in other respects to be mentally normal? The question is both biological and psychiatric. It should not be usurped and answered on either basis, without full consideration of the other.

THIS paper would not approximate completion without some reference to criminal drug addicts. Contrary to popular notion, very few criminals are addicts, and those are mostly in the petty criminal class. The doped mind is incapable of accurate functioning, even in crime. Also other criminals fear to take a "cokie" in on a job. The very few addicts who come into a felony court are for the most part victims of heroin. They usually commit a theft while carrying a "yen," and under immediate urge for more dope. Many years ago addiction was quite common. Dope was cheap and easy to get. Cocaine in powder solution, put out as catarrh medicine, was purchasable at a small price without prescription, at any drug store. Coca-cola contained cocaine in mild solution, but enough to cause addiction. Today that is changed. Addiction is expensive and therefore difficult to maintain. Apparently the most extensively used narcotic is marihuana. It is trafficked on a large scale and is quite out of hand. Some of our army and navy forces reek with it. A survey of one company at an army fort showed that nearly all were using this drug. One soldier left a fort while under the influence of the drug, with two loaded automatics in his belt, and committed several holdups before being arrested. He had no recollection, later, of what he had done. I have seen seized letters, from boys in the army and navy, complaining of the horrors they endured when deprived of marihuana. This drug will undermine the moral and physical strength of our fighting forces and of people in general, unless the traffic is stopped, and this will be no

easy matter, although a Federal law on the subject was recently enacted. Marihuana leads to insanity and homicides. Continued addiction leads to manic outbreaks in which the subject runs amuck and murderously attacks those in his path.

At present we can do nothing with criminal drug addicts other than to sentence them the same as anybody else. This may be all right in some cases but in others it works injustice. A special penal institution for drug addicts may be the answer. They should not, as a rule, be held to the same rigid account-

ability as other criminals, because they are largely irresponsible. Segregation for the purpose of special treatment would seem to be in order.

This paper must now close. It has sought to show that crime as such is not a disease, but that many apparently criminal acts are in fact purely psychotic manifestations, and that these are, in the main, being dealt with as expeditiously as the wisdom of our legislatures permits; but that in the case of sex crimes against children, and crimes committed by drug addicts, we should not regard our present remedial powers as final.

TRAINING OF THE STUDENT IN ADEQUATE MEDICAL CARE

A. A. BAILEY and H. G. WEISKOTTEN, Syracuse, N. Y. (*Journal A. M. A.*, Dec. 25, 1937), describe a procedure which has been in use at Syracuse University since 1930 in the hope that it would give the students a better point of view toward all the problems involved in adequate medical care. The program has involved the placing of responsibility on each student for a complete study of at least one patient who has been assigned to him as a clinical clerk on the hospital wards. At the beginning, the home visits connected with these studies were supervised by the hospital social worker. However, such supervision tended to routinize the work of the student and failed to develop initiative and the co-ordination that was essential to a satisfactory point of view toward the case as a whole. After several years of experimenting, the program has developed until it is now conducted as follows: Each clinical clerk is assigned a patient for investigation. The patient selected is one whom he has studied in the hospital from the clinical point of view. An effort is made to avoid cases in which the diagnosis is doubtful and to select those cases which present individual and environmental problems. The instructor may be aided by the social worker in the selection of the cases, but the student does not consult the social worker before making his study of the case. The instructor explains to the clinical clerks

the significance of the investigations and outlines to them a general plan of procedure. The student then visits the patient's home, interviews the family, surveys the situation in general and drafts a rough report, giving the results of his investigation. The instructor reviews this report with the student and then goes with him to the home and familiarizes himself with the situation. He then discusses with the student the problems presented and, if necessary, makes suggestions for further investigation. On the completion of his study, the student prepares a report which includes a series of recommendations with regard to the adequate handling of all aspects of the case. He presents this report at one of the medical seminars, which are held weekly throughout the year. After the student has presented his report, the social workers are asked to comment on the case and to give any additional information they may have. Each faculty member then discusses the situation from his own particular point of view and questions the student with regard to various aspects of the case. The attending students participate in the discussion. The student is expected to follow his patient throughout the year and to file a supplementary report giving the final status of the patient at the end of the year. Usually two reports are presented at each seminar meeting and the schedule is so arranged that each student attends four seminars and thus hears the presentation and discussion of seven cases other than his own.

CRIME AND

Psychiatry

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WHEN we think of such things as insanity, feeble-mindedness and internal secretion disorders in their relation to crime, there is a close intermingling with all but invisible borders of the medical, the sociological, the psychological, the economic and legal points of view. But nevertheless the differences are clear cut to the trained and experienced observer.

I spent most of the summer of 1922 in Germany. This was immediately after the war; it was at a time when the mark was skyrocketing. Poverty, crime, immorality, all forms of debauchery seemed to parallel the money market. I then went to Italy and, although the lire did not fluctuate quite to the limit of the German mark, it fell ridiculously low. As in Germany, crime, debauchery, etc., were out of the control of the authorities. We all know that, with the depression in this country, crime has increased.

AN act is not a crime until it has actually been committed and often the nature and quality of the particular crime may or may not be serious, depending upon the time and the locale of its actual performance. To illustrate: A doctor had a fight with his wife. She went after him with a knife. He threw a chair at her; there were bruises and cuts—a murder could easily have been committed.

I always think of three kinds of crimes and criminals. First, the cold-blooded, hard-headed, straight-thinking person who deliberately chooses a business career of crime and, if caught, takes a chance on the consequences and tries

to get the best bargain on the punishment. The second I call the mental criminals. These are the insane, the psychoneurotics, and perverts. The third are the weaklings, the tools, often psychoneurotics, feeble-minded, drug addicts, etc. I believe that the real so-called master minds of crime belong more often to the second group; these are the insane and psychoneurotics. In my opinion, the majority of petty criminals belong to this group also. The instruments with which both of these groups work are often the third group. The grandiose ideas of the manics, the delusions of the dementia praecox cases and the perversions of the patients with internal glandular disturbances often are serious crime promoters. Dementia praecox cases frequently crave to be heroes. It is this craving, this exaggerated ego, this delusional state which makes a leader of a gang. I believe the heads of those countries in Europe who are not fit for their positions, either by training or education or experience, belong to the same class as an Al Capone or an Owney Madden. We can go into any one of our State hospitals and see inmates who, to satisfy their exaggerated ego, wear badges, make grotesque uniforms and often decorate themselves in the most fantastic manner. They love to be addressed as General or Captain. How much is this parallel to the parades and fanfare going on in certain countries, the lack of respect for life, liberty and the pursuit of happiness?

EPILEPSY and crime are at times very closely associated. The so-called psychic epilepsy or epileptic equivalent is quite common. It is true that the crime does not happen during incarceration, but how can it? This is the one reason it does not happen. It is also true that a very marked psychological alteration of the general regimen of an epileptic fre-

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quently stops the attacks for a longer or a shorter period of time. This is why, when an epileptic goes to prison, often nothing happens mentally. The person is discharged and, sometimes, a few days after freedom, commits the same crime again. In court he will say, "I do not know why I did it; I just could not help it; I should not have done it." Such is the case with psychic epileptics. A doctor of this city has a son who received a Ph.D. at Columbia. He was a quiet, cultured, well-built and fine appearing young man. But occasionally he awoke in the middle of the night and gave his father a terrible beating. After one of these beatings, the father was so badly man-handled that he had to be removed to a hospital for several weeks. On one occasion, he was placed in a dormitory at the College with the idea of preventing the attacks and, there, he beat up two students. This boy is now at a State institution and begs to remain there. I believe, if his father were not a physician, the young man would have had a terrible time to prove his epilepsy.

JUST a few words about some of the sex crimes with which I have been personally acquainted; and there have been many. Several things must be considered in these cases. One is the point of view; that is, does the defense bring you the case for an opinion or do the prosecuting authorities ask you for your advice. A young man of twenty-three was accustomed to sit on a certain bench in Prospect Park and, as different girls passed, he would attack them. The father of one of these girls notified the authorities and the boy was arrested. I was first consulted by the family doctor and a lawyer for the boy. They gave me the history that he was a hypothyroid boy, over-sized, over-sexed and under-brained. He was never capable of holding a job any longer than a week at a time. He was never able to get along in school as do other children. His father sent him to private schools and finally to a military academy from which he ran away. They claimed he was a weakling, irresponsible, and that he should have been committed long ago to an institution for the feeble-minded. I had not seen the boy up to this time. The District Attorney then consulted me and gave me

the following history: "He was never any good. His family could not handle him as a child. He was kicked out of one school after another and he never wanted to work. He has been good-for-nothing and is still the same, a big, husky, no-good bum." And here are the two points of view of the same boy. This boy is now at Napanoch, a State institution for the feeble-minded.

EMOTIONS and judgment are too often in conflict. When the emotions win over better judgment, crimes may result.

Not many months ago, I was appointed on a lunacy commission. Briefly the story is about a woman forty-five years of age who was arrested for forgery and held in the detention prison for an examination. She was so ladylike in her manner that, on one occasion, when they were doubling up in the cells on account of overcrowding, a matron offered this lady the privilege of sharing her room. She talked to none of the other prisoners. They used to call her "stuck-up" and it was the general feeling that she was better than the others. On the first two or three visits that the lunacy commission made, she flabbergasted them. Finally we got the following history. She was brought up in an orphan asylum in Brooklyn. When the girls passed fourteen, it was the custom in this institution to place them out to work. After she was out of the institution a few days, she was looking into the windows of a department store on Fulton Street. While so doing, another girl saw her. This was a former inmate. She greeted her and asked her what she was doing there. When the second girl was told that she was looking at the beautiful coats, the prompt reply came, "Would you like one of them?" Our lady laughed and said, "Sure." The girl was then asked to go to the fur department of the store, select the coat she wanted, and she could have it. She tried on several coats, selected one and that evening her friend brought the coat to the prisoner's home. The thieving companion had tried on the coat in the store, strutted around, and got her opportunity to walk out of the store wearing it. This was so easy that our prisoner soon joined her in adventures in which the

two girls would steal bracelets, dresses and other ladies' apparel from large stores and, for a pittance, sell them to small specialty shops where the labels were changed and the goods retailed. After a few years of this nefarious work, the lady was arrested. For giving information which led to the arrest of the first girl and turning State's witness, she received a minor sentence at Bedford Reformatory. There she learned much about forgery. On account of her good behavior and her exceptional manner, she was soon paroled. After a few years, she was arrested for forging small checks with which she bought Christmas presents. For this she received a suspended sentence. The judge, the jury and the prosecuting officers were won over by her simple and modest manner. Shortly thereafter she married and had two sons. They are now adults. She has since been arrested many times for forgery for small amounts of money. There is one indictment for forgery still hanging over her at Huntington, L. I. It was three years later that she was apprehended for this offense. Two checks which she forged were taken out of envelopes addressed to someone else and she endorsed them and bought goods in the neighborhood stores where she was well known. One check was for about \$6.00 and the other for about \$10.00.

I personally have interviewed the sons, many relatives and neighbors. All these people are of the better class and were shocked when informed of the forgeries. There were many more forgeries for which no charges were made. When I asked this woman why she did these things when money was not so essential, she was unable to explain but said she was distinctly conscious of all she was doing, and that she knew the consequences in the way of possible punishment. She also said she did not debate in her mind whether to do these things or not, but she just did them. Like other prisoners, she begged for another chance. She said she knew that she could stop and I explained to her that if she were treated more like an invalid than a criminal and were taken care of properly just as if she were ill in a hospital, she and everyone else would be served in the best interests of

society. She was finally sent to an institution for the insane where she now has charge of all dining room supplies and has quite a position of authority becoming to her mental status. Her title is Dining Room Mistress.

IT IS often stated that crimes of the thing, such as burglaries, forgeries and the like, are always due to cold-blooded reasoning in contradistinction to crimes of the person, such as murder, rape, etc., which are more often the result of emotion. Upon occasion, an expert has great difficulty in convincing a judge and jury of his sincere convictions when exact words are not readily available to express what he wishes to convey. This week I treated an old man with cerebral arteriosclerosis. He has an only daughter who is about forty years old. She has more than average mental equipment. She is a college graduate and plays the piano fairly well. She came to me and complained she could not sleep unless she took six doses of a certain drug. She said she was very nervous, and for several years had been taking increasing doses of this medicine. I spoke very sternly and explained that she should conquer her instability. I advised her to play the piano, meet plenty of good company, take courses of study and, if this were not enough, she could achieve an emotional balance by greater sexual experience. To all of this she answered, "Yes." The next day she called me on the telephone and said her father had become very much afraid of me and did not want to see me again. Although I was discharged from this case by his daughter, the final words that the father had spoken to me on my last visit were, "Please come tomorrow." Apparently she was lying. I do not know what happened in this house since I was not there. I only mention this experience to show that in many cases with judgment and reason there is a desire to get well, but subconsciously, emotionally, they do not want to at all.

WE will not take the time, now, to discuss the possibilities of obsessions, other compulsion neuroses, paresis or cerebral arteriosclerosis. Many sex

crimes of old men against children have either one or more of these conditions as a cause. There is no question but that newspaper publicity and other suggestions to which this type of person is especially susceptible have their effect. Behavior changes following infections, especially of the brain, such as encephalitis and meningitis, are very common, as are also posttraumatic constitutional deteriorations. Emotional changes frequently follow severe psychic trauma like the death of a dear one, a blasted love affair, or a war hysteria, etc. Of course, all such cases are abnormal before the attack in that the ground was fertile for psychotic development. Bad habits uncorrected and permitted to progress are too frequently behind criminal careers. Exactly the same thing can be said about dementia praecox. Eyeglasses that do not fit,

genital irritation, psychic deficiencies, over-shyness, insomnia, etc., all tend to affect the patient pathologically and too often a criminal state becomes established.

IN conclusion, psychiatry has only begun to scratch the surface. Psychology has made progress in seeking the truth but, alas, all we can arrange at present is segregation, treating some physical defects with occasional organotherapy or antiluetic therapy; at times, we can effect some psychic training and early careful nurture and culture of the developing child. Some day, perhaps, this entire matter will resolve itself into a medical problem and the only road open for us is to work and experiment and hope.

502 WASHINGTON AVENUE.



PNEUMONIA IN INFANTS

Pneumonia in newborn or stillborn infants is a definite pathologic process which cannot be diagnosed with certainty until the autopsy, because it so resembles hemorrhage and atelectasis. It is the result of aspiration of toxic bile salts and irritative cornified epithelial cells which form the solid constituents of amniotic fluid which produces a non-bacterial irritation. The leukocytic exudation fills the lungs and prevents proper aeration and the extent of the process determines its severity. It is usually found in infants who have had long and complicated deliveries and who are either dead or in poor condition at the time of birth, and who are usually the victims of other pathological lesions sufficient to have caused death in themselves. Only a few died with no other pathological lesions and even those had some birth complications. Prevention of this condition is possible only by improving the prenatal conditions of infants and by improving, as much as is possible, the conditions under which they arrive in this world.

—MARGARET WARWICK, M. D.

in N. Y. State J. of Med., Dec. 15, 1937.

CIRRHOSIS OF LIVER IN ITS EARLY STAGES

Thomas P. Sprunt, Baltimore (*Journal A. M. A.*, Dec. 11, 1937), points out that in spite of increased knowledge of physiologic chemistry, the most valuable clinical data for the diagnosis of hepatic diseases are still to be obtained by a painstaking clinical history, a careful physical examination and other relatively simple methods of bedside observation.



PREVENTION AND MODIFICATION OF MEASLES

Pending the development of better methods of control, CHARLES F. MCKHANN, Boston (*Journal A. M. A.*, Dec. 18, 1937), believes that passive immunization with human immune bodies of children after they have been exposed to measles would appear to present the most useful procedure in the prevention or modification of the disease.



LIBRARY OF THE MEDICAL SOCIETY OF THE COUNTY OF
KINGS AND ACADEMY OF MEDICINE OF BROOKLYN

Cultural Medicine

SOME OF THE GREAT MEDICAL LIBRARIES OF THE UNITED STATES

"Great Oaks from little acorns grow."

THIS old saying truly applies to the development of this library. It was in 1844 in his inaugural address, after his election to the presidency, that Dr. Bradley Parker suggested the establishment of a library.

By recourse to the original minutes, we find that at an adjourned meeting of the Society held August 5, 1844, a committee reported as follows:

"The Committee to whom were referred the suggestions contained in the address of the President of the Society at its last meeting beg leave specially to recommend for the immediate action of the Society the excellent proposition to establish a library.

"Your Committee respectfully suggest that as a beginning, as soon as practicable, the following medical journals be ordered for the Society by the Secretary: The New York Journal of Medicine, Philadelphia Journal of Medical Sciences, Boston Medical & Surgical Journal, London Lancet, Braithwaite's Retrospect, Johnson's Medico-Chirurgical Review and any other journals which the Society may select and that the Secretary be authorised to be prepared to receive donations in books or money at each meeting of the Society—that a committee be appointed to wait on absent members to solicit donations and that from time to time the surplus funds of the Society be devoted to the purchase of books and periodicals for the said Library".

This report, so far as the establishment of a library was concerned, was adopted by the Society at its quarterly meeting held October 14, 1844. Thus, this library was born.

THE significance and value of this new function and activity of the Society was expressed in a later report of the Committee in the following words:—

"Relieving this to be among the most important questions ever submitted to the consideration of the Society, they deem it but justice to all parties, to state at some length a few of the reasons which in their honest conviction induced them to concur in the above strong recommendation:

1. "By increasing our facilities for pleasant social interviews and more frequent meetings, it will probably tend greatly to a more intimate

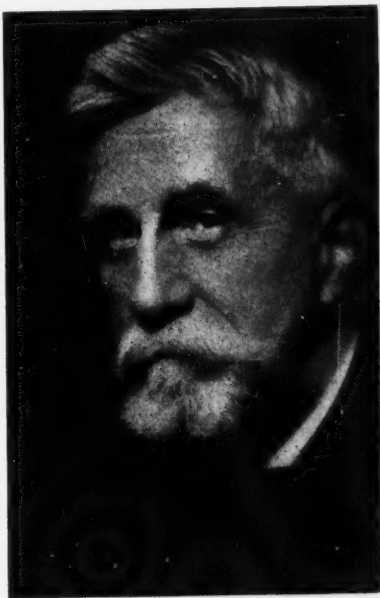
acquaintance, and a better understanding among the members of the Profession here."

2. "In a Library where the latest discoveries and improvements are embodied in the several leading Medical Journals taken, and the new works constantly added, the Senior Physicians will find in a convenient compass, nearly all the valuable, new accessions to Medical Literature.

3. "To the Junior Members of the Faculty, whose minute libraries are often limited, from the painful but necessary economy attendant on their early struggles, and who are thus compelled to waste precious leisure hours in the seed time of the Profession, such a Library will be an invaluable privilege."

WILLIAM BROWNING, M.D.

Directing Librarian Emeritus, Medical Society of the County of Kings and Academy of Medicine of Brooklyn.





MR. CHARLES FRANKENBERGER
*Librarian, Medical Society of the
 County of Kings and Academy of
 Medicine of Brooklyn.*

that they had made arrangements with the City Library of the Brooklyn Lyceum (later known as the Brooklyn Institute) for the housing of the library and for a meeting place of the Society.

This was the first tangible evidence of the collection which has now become one of the great medical libraries of the country.

As little progress was being made in developing the library, a special library committee recommended, in 1867, that a medical section be established in the Library of the Long Island Historical Society. Following the adoption of this recommendation, the committee raised nearly \$1,000.00 and secured over 200 volumes. A little later the Historical Society's medical collection was greatly augmented by the gift of the library of the late Dr. DeWitt C. Enos. All of the medical books of the Historical Society were very courteously turned over to us in 1901 on permanent deposit. Though kept up actively only for a couple of years, this arrangement with the Historical Society did not prove as satisfactory as had been hoped. Access to medical books was not possible to members of the profession generally. This limitation prompted Dr. W. R. Reese, elected Librarian in 1869, to reestablish the public character of our collection by purchasing a portable bookcase which he placed in the meeting room of the Society in Everett Hall. The bookcase soon became filled and in 1877 a free reading room, open from 10:00 A. M. to 10:00 P. M., was instituted. This was the beginning of the growth of the present library.

4. "By increasing by such means the intelligence of any portion of the Profession, and thus elevating its respectability as a body, the individual interest of every member will be provided."

This forward looking action on the part of the forefathers of our Society was the firm foundation upon which this library was founded. It has gone on to its present place of usefulness adding lustre and recognition to the Society which is its proud possessor.

ALTHOUGH the Medical Society of the County of Kings was organized in 1822, it was not until 22 years later that the library came into being. It is one of the early organized public medical libraries of the country, probably antedated only by the College of Physicians of Philadelphia and the Medical & Chirurgical Faculty of Maryland. It is also the oldest public library in Brooklyn aside from the precursor of the Brooklyn Institute's collection. The first statement on the progress of the library was made on July 14, 1845, when the Committee reported "That since the last meeting they have collected \$50.00 in cash, and that by purchases and donations, the library is increased to sixty volumes." The Committee also reported

I N 1879 when Dr. Thomas R. French was elected Librarian he stated that the collection numbered 585 volumes and recommended the appointment of a committee to raise funds for the library which netted over \$500.00. In 1885 the library contained 1300 volumes housed in Everett Hall on Fulton Street. In 1886, Dr. Joseph H. Hunt was elected librarian and continued in that capacity

for the next five years. As the result of the energy of this book-loving librarian, the library more than doubled itself during the period he held office. He secured the appointment of a part-time librarian and also initiated the systematic cataloguing of the material in the library.

In 1891, Dr. William Browning succeeded to the office of Librarian and continued in that capacity for ten years. During this decade, he saw the library grow from 3,882 volumes to 20,000 volumes. Dr. James M. Winfield followed Dr. Browning as Directing Librarian in 1901 and served until 1905 and again in 1910-1911. During his administration as a result of his enthusiastic and devoted interest, the library had a remarkable influx of material totalling about 30,000 volumes and including some of the outstanding collections acquired such as the Purple, Skene, Joseph Jones, German Hospital and Dispensary (Manhattan), A. N. Bell and Long Island Historical Society (permanent deposit) libraries.

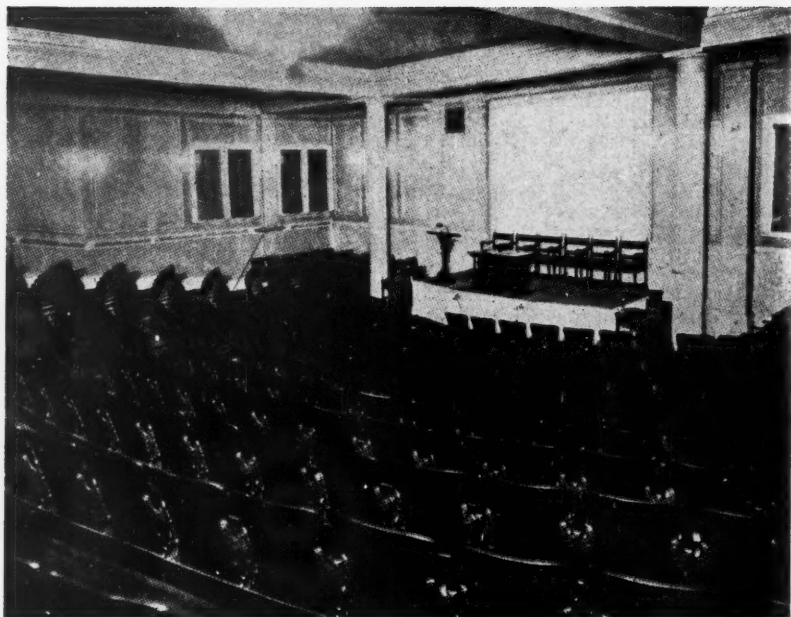
IN 1900 came the new building erected through the efforts of Dr. George MacNaughton and his confrères. The completion of the present fire-proof structure, the first with steel stacks in the country if not in the world, assuring permanent housing, stimulated the acquisition of material so that in 1903 the Library had grown to 35,000 volumes.

Dr. Browning again served as Directing Librarian for another ten year period from 1917 to 1926. In 1917 the library had increased to 70,000 volumes and today it numbers about 143,000.

Dr. Browning is the real father of our present library. He has evidenced a keen personal interest in its welfare for more than 50 years and has done more than any other individual in making it possible for it to attain its present size and completeness. He has seen it grow from an acorn of about 1000 volumes to a sturdy oak of 143,000 volumes. Today, we rank fourth in size,

Reading room of the Library of the Medical Society of the County of Kings.





excluding the Surgeon General's Library, maintained by our Government, among the medical libraries of the country; the largest collection in the country, owned, maintained and housed in its own building by a County Medical Society.

Except for the period when the books were deposited with the Long Island Historical Society, for the most time the library has been quartered in the various meeting places where the Society convened. Real progress in the growth of the library did not develop until the Society secured a building of its own. This was done in 1887 when an ordinary three story brick dwelling at 356 Bridge Street was purchased. The library increased so rapidly following this move that it soon became necessary to consider acquiring more adequate quarters. This led Dr. George MacNaughton in his inaugural address as President in 1894 to fire the opening gun which led to the dedication of our present building in 1900. With the growth of our borough, the increase in our membership, the great accumulation of medical literature and

MacNaughton Auditorium looking toward the Rostrum.

the facilities required by our expanding activities, we have long since outgrown our present structure. In 1922, as the result of the efforts of Dr. Russell S. Fowler, as Chairman of our Centenary Celebration Committee, a fund of \$60,000.00 was raised for library endowment and expansion purposes. With a portion of this money, two old tenement houses, fronting on Atlantic Avenue and extending along the rear of our building, were purchased for future enlargement of our building. Again in 1927 the adjoining tenement house and store property abutting our property on the corner of Bedford and Atlantic Avenues was acquired by the Society for future expansion purposes.

THE rear houses were razed several years ago and the corner property has just been demolished. A Plan and Scope Committee is having plans prepared for the extension of our building

on these adjoining lots. May the newly expanded Society and Library building so imperatively needed be realized in the not too distant future.

In attaining its present rank, our library has had a remarkable development when it is considered how limited has been the financial support which the Society has been enabled to give.

The bulk of our collection has been acquired through the gift or bequest of the libraries of deceased members and other physicians. In addition, a series of notable accessions have been secured by donation or by subscription. These include the B. A. Watson, the second Samuel S. Purple, A. J. C. Skene, Joseph Jones, George Jackson Fisher, Willard Parker, Mott Memorial (from the State Medical Society), German Hospital and Dispensary (Manhattan), A. N. Bell, Brooklyn Health Department, New York Academy of Medicine duplicates, F. W. Wunderlich, Henry A. Studwell, John D. Rushmore, William Schroeder, Sr., and many other individual collections. Many of these collections have been secured "en bloc" through the generosity of small groups of our members contributing the necessary funds to purchase them.

THIS is the fine spirit upon which our library has been built. Not only for these collections but for the maintenance of our current material, individuals, groups of specialists, organizations and special societies meeting in the building are all contributing. One of our greatest supporters has been the Medical Library Association of Brooklyn. This organization was founded in 1903 as an auxiliary to provide additional funds for the advancement of the library and practically all of its income has been expended for this purpose.

In 1899, the first library endowment fund was established by Mrs. Eliza B. Zabriskie (his widow) in the name of Dr. John Lloyd Zabriskie. This has been followed by the creation of other library funds either through bequest or by the gift of individuals, colleagues and friends in the names of Alexander Skene, George Ryerson Fowler, James M. Winfield, William Browning, Burton Harris, George MacNaughton, Lewis Stephen Pilcher, John E. Sheppard, William

Jarvie (D.D.S.), George Armon Clark, William Francis Campbell, Leon Louria, James S. Waterman, John and Sarah French.

The total of our library endowment funds is about \$40,000.00.

Greatly increased endowment is urgently needed.

As the largest medical library on Long Island, we cater to a vast population. Our material has been extended for reference use, without limitation, to all members of the medical profession and to all others having legitimate need to consult our collection. Our clientele aside from physicians and medical students includes dentists, druggists, nurses, hospital officers and workers, clergymen, lawyers, educators, college, high and library school students, newspaper men and writers, public officials, business men and industrial leaders and the general public.

In 1918, the first year of which we have a complete record of the use made of the library, 2317 readers consulted 5304 volumes and withdrew for home use 493 volumes.

Last year, 16,570 readers consulted 64,511 volumes and borrowed for home use 12,702 volumes.

THE library is rich in historical and biographic medical material, both local and general. It cherishes, though small, its collection of twenty-six medical incunabula. It possesses a fine collection of the medical classics of the fifteenth, sixteenth, seventeenth and eighteenth centuries, largely from the libraries of Drs. George Jackson Fisher and Joseph H. Hunt. It also has a considerable number of medical medals collected by Drs. Joseph H. Hunt and William Schroeder.

More than 1500 medical and dental periodicals are currently received. These come from practically all the States in the Union and from fifty-eight foreign countries in twenty-six languages.

The present officers of the Library are Dr. William Browning, Directing Librarian Emeritus; Dr. Jaques C. Rushmore, Directing Librarian; Dr. Edwin P. Maynard, Jr., Associate Directing Librarian and Curator and Mr. Charles Frankenger, Librarian.

—Concluded on page 101

Contemporary Progress

+ Rhinolaryngology +

Atrophic Rhinitis

H. MORTIMER, H. P. WRIGHT and J. B. COLLIP (*Canadian Medical Association Journal*, 37:445, November, 1937) report a study of 69 cases of atrophic rhinitis at the Montreal General Hospital; 65 per cent of the patients were females and 35 per cent males; the average age of the entire group was twenty-five years; 58 per cent of the group had ozena, which is regarded as a more severe form of atrophic rhinitis. Lateral and postero-anterior cranial skiagrams were made in all but one of these cases and showed definite evidence of dyspituitarism "during or subsequent to the growth period;" 81.3 per cent of the females and 54.2 per cent of the males showed evidence of pituitary hypofunction with varying degrees of calvarial dysplasia. The authors suggest that atrophic rhinitis "occurs as a genetically transmitted, more or less localized, focus in a special familial constitution; produced by the mating of dyspituitary individuals, in whom anterior lobe function is unstable;" the nasal osseous changes

in atrophic rhinitis can be explained on this basis. In considering the mode by which the dyspituitary constitution could influence the nasal mucosa and produce the changes in this specialized mucous membrane that are characteristic of atrophic rhinitis and ozena, a study was made of the naso-genital relationship in monkeys, and the effect of estrogenic substance on the nasal mucosa in these animals; and also of the changes in the human nasal mucous membrane during the sex cycle and especially during pregnancy. It was found that in monkeys the administration of the estrogenic substances produced specific response in the conchal mucosa which is "of an order opposed to the pathological changes occurring in atrophic rhinitis;" and is similar to the changes observed in the nose of the human female in pregnancy. On the basis of these findings, 38 patients with atrophic rhinitis and ozena were treated

by the local application of hydroxy-estrin in oil. After cleansing the nose this was applied with a nasal atomizer with the reservoir graduated in c.c. Patients were instructed to apply about 0.25 c.c. in each nostril at each application. In severe ozena, crusts were removed twice a week at the Clinic and an alkaline spray was employed before the estrin spray. Of the 31 female

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patients in this series, 19 per cent (6 cases) showed definite improvement; and 64.5 per cent (20 cases with ozena) showed disappearance of crusts and odor and of purulent secretion, the mucosa becoming almost normal in color. The 7 male patients carried out treatment less regularly and the results were less satisfactory, but sufficient to show that "the male conchal mucosa does respond to the female sex hormone."

COMMENT

It is interesting to note that, with the discovery of new types of disease, a suggestion is always made that old, chronic diseases can be relieved or cured by new methods. We agree that in atrophic rhinitis, often-times accompanied by ozena, there is a hereditary influence. What is particularly interesting is the suggestion that estrogenic substances have a direct influence upon the nasal mucosa. We welcome the idea of treating this baffling condition with hydroxyestrin in oil.

H.H.

Vasoconstrictor Properties of Benzedrine and Its Use in the Relief of the Common Cold

E. M. BOYD and W. F. CONNELL (*American Journal of Medical Sciences*, 194:768, December, 1937) report the use of a benzedrine inhaler in 59 cases of acute rhinitis in students at Queens University, Ontario. The students were instructed to inhale once through each nostril not oftener than once every hour. Of these 59 patients, 3 reported no relief of nasal congestion, 16 reported results as fair, 27 as good, and 13 as excellent. This group of patients suffered from an average of four colds a year with an average duration of 8.7 days; the benzedrine treatment had practically no effect in reducing the duration of the cold, as the average duration with benzedrine was 8.1 days. In experiments on frogs and rabbits it was found that benzedrine acts by stimulation of the motor sympathetic endings in blood-vessel walls, "but not in the same manner as epinephrine;" it also to some extent acts directly on the smooth muscle, as some constriction occurred in ergotaminized animals. As a vasoconstrictor it was about as effective as ephedrine, but less so than epinephrine. It was slightly more toxic to ciliary

motion than either ephedrine or epinephrine.

COMMENT

Because of the tremendous amount of advertising of benzedrine, it is only natural that some investigators should make a serious study of its effects and should attempt to determine whether it has any curative value. Year after year physicians, some of whom are specialists, have been advising the use of various local medicines in order to relieve local inflammation in the nose. Very few of these physicians feel that the particular medicament used has any definite curative value. Most of the effects are very transient and the most that can be said is that they make the patient feel that the nasal mucosa is less congested. The same can be said for benzedrine. In the form in which it is used, that is, in an inhaler, it is a very convenient method of treating the mucosa. It remains to be seen whether benzedrine or any medicine used locally has any lasting effect.

H.H.

Submucous Resection of the Nasal Septum

S. FRANK (*Medical Record*, 146:469, Dec. 1, 1937) notes that the operation of submucous resection of the nasal septum should not be done indiscriminately as "a cureall for a variety of head conditions" because of the presence of a ridge or slight spur on the septum. The chief indication for this operation is such a marked deviation of the septum that the affected nasal passage is practically completely closed; it is also indicated where because of the thickness of the septum or the presence of spurs, other intranasal manipulations are hindered, such as removal of polypi, antrum irrigation, etc., or approach to the Eustachian tube for catheterization is prevented. The author has also had good results from this operation in recurrent hemorrhages from the septal mucous membrane; and in cases in which a bulge or spur high up on the septum has caused turgescence of the mucous membrane and intranasal pressure through contact with the mucous membrane of the middle turbinate, with resulting reflex headache.

COMMENT

We wish to congratulate the author on his conservatism. We have repeatedly stated that not one person out of ten has a straight septum, but it would be decidedly inadvisable to suggest an operation such as a sub-

mucoous resection of the septum unless the deviation were sufficient to cause a direct obstruction interfering with breathing or sufficient obstruction to prevent one from resorting to proper treatment or operative procedures. Sometimes a very slight deviation high up in the nose which presses upon an enlarged middle turbinate will cause far more trouble than a larger deviation lower down which does not entirely obstruct breathing.

H.H.

Role of Helium in Cases of Obstructive Lesions in the Trachea and Larynx

J. D. KERNAN and A. L. BARACH (*Archives of Otolaryngology*, 26:419, October, 1937) note that the use of helium to relieve dyspnea due to obstruction in the trachea or larynx is based on the molecular lightness of this gas as compared with nitrogen. The substitution of a helium-oxygen mixture for air provides a respirable mixture which may be breathed with "a pressure theoretically almost one-half that necessary for breathing oxygen or air." In clinical use the helium-oxygen mixture is usually administered at a positive pressure between 2 and 4 cm. of water. The concentration of oxygen is 21 to 35 per cent. according to the degree of anoxemia present, the rest of the atmosphere being helium. For short periods of administration in adults a mouth-piece apparatus may be used; but the most satisfactory type of apparatus for both adults and children has been found to be a helmet-hood. Of 21 cases in which inhalation of the helium-oxygen mixture was used in the treatment of obstructive lesions in the trachea or larynx, 11 had marked relief from dyspnea; 7 of these patients were removed from the helium-oxygen atmosphere without the necessity of tracheotomy, but in one of these tracheotomy was done two days later, as a precautionary measure. All these 7 patients recovered. The 4 other patients in whom dyspnea was markedly relieved by the treatment, ultimately died, 2 as a result of a tumor, one in a thyroid crisis, and one from bronchopneumonia following a subsequent tracheotomy. In 3 cases little or no relief was obtained. In 7 cases, partial or temporary relief was obtained; in 3 of these cases a subsequent tracheotomy was done followed by recovery; the other

4 patients were fatally ill when treatment was instituted. The best results were obtained in cases of inflammatory swelling in the air passages due to infection or mechanical irritation; in some of these cases the necessity for tracheotomy can be avoided by the helium-oxygen mixture inhalations. In one case in which obstruction was due to a neoplasm, the helium-oxygen treatment could be continued until roentgen therapy reduced the tumor and relieved constriction.

COMMENT

Where helium gas is available, no doubt it is advisable to attempt to relieve dyspnea due to obstructions in the trachea or larynx in the manner suggested by these authors.

H.H.

Pulmonary Complications After Tonsillectomy

W. PASSARGE (*Archiv für Ohren-Nasen- und Kehlkopfheilkunde*, 143:286, Oct. 9, 1937) does not discuss pulmonary abscess or other severe pulmonary complications occurring after tonsillectomy, but pulmonary infiltration accompanied by fever occurring very soon after operation. The author was able to diagnose this condition in 16 cases; all of these patients made a good recovery; and it is probable that such cases are often overlooked or wrongly diagnosed. The chief symptoms in addition to the fever which developed within twenty-four hours after operation, were increase in the pulse and respiratory rate; there was no cough or pain over the lungs. There was usually an area of dullness on percussion, over one of the lower lobes; auscultation showed bronchial breathing. The roentgenological examination showed areas of infiltration in the lower lobes; in only 3 of the cases was an entire lobe involved. The fever and other symptoms persisted one to three days; the pulmonary infiltration cleared up in five to seven days. All the patients were in good condition at the time of their discharge from the hospital without evidence of residual pulmonary lesions. This type of pulmonary complication occurred when tonsillectomy was done for chronic tonsillitis as well as in the acute stage of peritonsillar abscess.

COMMENT

It is fortunate indeed that seldom are pulmonary symptoms noticeable after a proper tonsillectomy has been performed either in children or in adults. It is our feeling that such a complication is often due to a prolonged anesthetic. It is deplorable that some physicians are still attempting to perform tonsillectomies when they have no knowledge of the local anatomy. Recently we were called upon to consult on a case in which the patient went into complete collapse after the operation. It was more understandable when we found out that this inexperienced physician had taken over an hour to perform an operation which should have been performed in less than ten minutes. H.H.

Motion Pictures of the Larynx

J. J. PRESSMANN and A. HINMAN (*Archives of Otolaryngology*, 26:526, November, 1937) describe the apparatus employed and the technique used by them for taking motion pictures of the larynx. This method they state has three important advantages: It requires no expensive or unusual apparatus; local anesthesia is used so that laryngeal movements can be recorded; the photographs are taken during routine examinations or treatments without prolonging the procedure more than two or three minutes. The larynx is exposed by the direct laryngoscope, as for any examination.



Otology



Anomalies in the Cochlea in Patients with Normal Hearing

L. M. POLVOGT and S. J. CROWE (*Annals of Otolaryngology and Rhinology and Laryngology*, 46:579, September, 1937) describe the anomalies found in 17 temporal bones from patients on whom an otoscopic examination and hearing tests with tuning forks and audiometer had been made shortly before death. In 6 of these 17 cases there was a dehiscence in the bony septum between the middle and apical turns of the cochlea. This defect theoretically would impair the hearing for low tones, yet the audiometer tests had shown a normal threshold acuity for all tones in each case. In 4

cases this defect was unilateral, yet hearing was equally good on both sides. In 2 cases there was arrested development in the apex of the modiolus on one side, with equally good hearing on both sides. In one patient there was a defect on the right side in the bony wall of the middle turn of the cochlea, with some fibers of the facial nerve passing through a part of the spiral ligament; this patient had complained of tinnitus in this ear, but hearing acuity was normal. In one case the cochlea showed only two turns, in another three full turns; hearing for all tones had been normal in both patients; measurements of the basilar membrane in these cases showed its length to be within normal limits in both. An abnormality in the position of the lower basal turn of the cochlea was found in one case, without any impairment of hearing. In one case the scala vestibuli was much smaller than the scala tympani on one side, yet hearing was normal and identical in the two ears. In 2 cases there was a dehiscence in the bony wall of the osseous spiral lamina in the basal turn of the cochlea; this lesion was bilateral in one case and unilateral in the other, with normal hearing for both ears in each case. In 2 cases vascular anomalies were found in the cochlea; one of these patients had occasionally had tinnitus, but the hearing was normal in both cases. It is evident that various congenital abnormalities may be present in the cochlea without any impairment of hearing.

COMMENT

When any research work such as has been presented by these authors is brought to our attention, we are bound to pay special attention to it. We have repeatedly stated that the amount of hearing or the amount of deafness that a patient has is seldom in proportion to the amount of pathology or the lack of any pathology in a given case. Apparently deafness is due to etiological factors which can not be discovered by pathological examination of the bones or soft tissue after death. Apparently, in the majority of cases deafness is due mainly to a displacement of the ossicles and the membrana tympani. The sooner otologists realize that the auditory mechanism is an electrical contrivance which has to be finely adjusted at all times, the sooner will they appreciate the fact that pathology has very little to do with the matter except in those rare instances

where disease processes are manifestly evident.
H.H.

Urea in the Treatment of Chronic Otitis Media

P. S. MERTINS, Jr., (*Archives of Otolaryngology*, 26:509, November, 1937) was led to try urea in the treatment of radical mastoidectomy cavities and chronic otitis media by the results reported by Holder and MacKay (*J.A.M.A.*, 108: 1167, Apr. 3, 1937) with the use of urea in the treatment of infected wounds. In the first case, a radical mastoidectomy cavity that discharged after it had been unpacked was dusted with urea crystals once or twice daily; discharge ceased in a few days and the cavity healed completely within five weeks. Other radical mastoidectomy cavities have since been treated by the application of urea crystals or urea solutions with excellent results. Cases of chronic otitis media have been treated with saturated solution of urea dropped into the ear, or urea crystals dusted into the ear with a powder blower. If the urea can be brought into contact with the diseased area, the odor is rapidly eradicated and the discharge ceases. In one case a large granulation had to be removed before the treatment with urea gave good results. In cases showing small perforations, results are not always good, and enlargement of the perforation may be justifiable. As a rule the application of urea causes little or no pain; if the tissues are acutely inflamed or "raw," there is some pain, but not as severe as with alcoholic solutions. Urea is almost totally non-irritating to living tissue, and "mildly bactericidal," but its chief value is its power of dissolving necrotic debris and thus removing "the chief deterrent to healing in many types of chronic aural infection." It also eradicates the odor of the discharge almost immediately "without producing another odor."

COMMENT

The suggestion that urea crystals may be used in the treatment of a chronic infection is worth while pondering over.
H.H.

Hearing Before and After Radical Mastoidectomy

E. P. FOWLER (*Archives of Otolaryngology*, 26:387, October, 1937) reports hearing tests with the audiometer before and after radical mastoidectomy in 54 cases. The radical mastoidectomy was done in these cases according to the usually accepted indications for this operation; in all there was a history of suppuration of several years' duration in the worse ear (the ear operated on except in 2 cases). In almost every case the better ear showed evidences of previous "inflammatory episodes," and in 75 per cent. of the cases there was a definite history of suppuration in this ear. The tests showed that hearing increased over 5 db (decibels) in the worse ear after operation in 16 cases, decreased more than 5 db in 18 cases, and showed no change (more than 5 db) in 20 cases. Hearing increased in the better ear in 10 cases, decreased in 9 cases, and showed no change (more than 5 db) in 35 cases. In 5 cases the hearing improved in both ears and in 5 cases decreased in both ears, remaining the same in both ears in 13 cases. In most cases, little or no improvement in hearing resulted from the radical operation. None of the ears on which the radical operation was performed had undergone a simple mastoidectomy at an early stage of the suppuration, and in only 6 cases had this operation been done at any stage. Chronic suppurative otitis can be prevented only by adequate treatment of acute otitis; such adequate treatment includes a simple mastoidectomy "properly timed and executed" when adequate drainage of the suppurating ear cannot be obtained "speedily" by other methods.

COMMENT

The question of the amount of hearing the patient will have after a radical mastoid operation depends upon many factors. In former days when otologists went to extremes in operations, it was a foregone conclusion that the patient would become permanently deaf in the operated ear when a radical mastoid operation was performed. However, the majority of otologists fashion their radical mastoid operation according to the condition that they find at the time of operation. The result is that a great deal of the hearing is preserved and, in many instances, it is even improved.
H.H.

Prophylactic Vaccinations Against Intracranial Complications of Pneumococcus Type III Mastoiditis

J. L. GOLDMAN and C. HERSCHBERGER (*Journal of the American Medical Association*, 109:1254, Oct. 16, 1937) report the treatment of pneumococcus type III mastoiditis with vaccine. Vaccine treatment was begun immediately after the mastoid operation or in some instances before operation. At first, six injections, later ten injections, were given twice weekly in dosages increasing from 0.1 to 1 cc. For the first injection a stock vaccine was used, for later injections an autogenous vaccine was used. Of 61 patients with pneumococcus type III meningitis admitted to Mount Sinai Hospital (New York City) from September, 1931 to April, 1937, 5 patients died from various complications before a full course of vaccine treatment could be given; in none of these cases were more than two injections of vaccine given. Fifty-six patients were given a full course of vaccine; of these 4 died; one of these patients died from bronchopneumonia six weeks after operation; in another the clinical picture was complicated by carcinoma of the nasopharynx; the other 2 deaths were due to meningitis secondary to the mastoid infection. Fifty-two of the 56 patients made good recoveries without complications, showing "greater recuperative powers" than usually observed in patients with this type of infection. The death rate in this group of vaccinated patients was definitely lower than that observed previously in the Hospital with mastoiditis due to pneumococcus type III infection, although the general clinical management and operative technique were the same.

COMMENT

This report shows very plainly how necessary it is to take cultures from the discharge from the middle ear in all cases. If the pneumococcus type III is present in the discharge, serious complications may often be avoided by prophylactic injections. H.H.

Prevalence of Middle-Ear Disease in Elementary School Children

F. J. G. LISHMAN (*British Medical Journal*, 2:1165, Dec. 11, 1937) reports

a study of the incidence of middle-ear disease in elementary school children as determined by the routine medical examination and by otoscopy. In the district of Surrey (mixed urban and rural), 25 cases of middle-ear disease were found in 763 children with routine inspection; with the use of otoscopy this number was increased to 74, giving proportions of 33 and 97 per 1,000 children respectively. In the city of Oxford in 1,634 children examined during a year, 49 cases of middle-ear disease (30 per 1,000) were found by the routine examination; 136, or 89 per 1,000, with the aid of otoscopy. According to the standards of the British Board of Education for "otitis media requiring treatment," the incidence of such cases of otitis media (as found by otoscopy) is 57 per 1,000 in Surrey, 37 per 1,000 in Oxford, and 43 per 1,000 in the two districts combined, which is "almost exactly ten times" that reported by the Board of Education as found by routine medical examination.

COMMENT

Those of us who have been closely associated with the preventive treatment of deafness in children realize the fact that there are far more children in the public schools suffering from deafness than is apparent from the reports of the medical examiners in the schools. A survey of over eight hundred thousand children in greater New York in the past few years brought out the astounding fact that between eight and ten per cent of these children were suffering from defects in hearing. The importance of bringing attention to this trouble is that a large number of these children can be improved or cured during the school years if they are cared for by competent otologists. H.H.

+ Gynecology +

The Clinical Significance of Endometrial Hyperplasia

F. L. PAYNE (*American Journal of Obstetrics and Gynecology*, 34:762, November, 1937) reports a study of 534 cases in which endometrial sections showed hyperplasia; only 38 of these were obtained from women past the menopause. Abnormal bleeding was asso-

ciated with the endometrial hyperplasia in 85 per cent. of the cases. When hyperplasia was associated with other pelvic lesions, the frequency of abnormal bleeding varied according to the lesion present. Thus there was abnormal bleeding in 89 per cent. of the myomas associated with hyperplasia, but in only 45 per cent. of cases of pelvic inflammatory disease with hyperplasia. Of the patients with postmenopausal hyperplasia, one-third had had no bleeding since the cessation of menstruation. In endometrial sections from 676 patients with functional bleeding, endometrial hyperplasia was found in 35.8 per cent. These findings indicate that endometrial hyperplasia is not a necessary accompaniment of abnormal uterine bleeding of functional origin. Endometrial hyperplasia was found in only 17.5 per cent. of myomatous uteri in this study; while myomas were present in only 35 per cent. of the cases with endometrial hyperplasia. These findings do not support the theory that myomas and hyperplasia have a common etiological basis. The fact that 43 per cent. of the ovarian cysts in this series were accompanied by endometrial hyperplasia indicates that this is an endometrial response to disturbed ovarian function. While it is possible that the stimulative process that produces endometrial hyperplasia might continue until it assumed malignant characteristics, the author considers that this must be very rare. There is more danger that hyperplasia may "dominate the pathologic picture" so that malignant change is obscured and overlooked. Microscopic study of specimens is necessary to determine whether or not carcinoma is present.

COMMENT

Endometrial hyperplasia is a variable condition, the significance of which is much overrated. The fact that abnormal bleeding was associated with hyperplastic endometrium in 85 per cent of the cases does not necessarily mean that the bleeding was due to the hyperplasia alone. Most endocrinologists like to believe that endocrine dyscrasia is responsible for the bleeding and that the thickened endometrium is a result, and not a cause, of the abnormal bleeding. Furthermore, functional abnormal bleeding can occur without any changes in the endometrium and likewise oligomenorrhoea or amenorrhoea may

occur with hyperplastic endometrium. During or past the menopause, we believe that endometrial hyperplasia bears some relationship to the development of cancer. On the other hand, we do not believe there is sufficient evidence to prove that myomas and endometrial hyperplasia have a common etiology. Moreover, it is significant that endometrial hyperplasia almost always accompanies ovarian cysts, due, in all probability, to an endometrial response to an excessive hormonal stimulus (disturbed ovarian function). Such investigation as has been made by Dr. Payne is very helpful and should be encouraged in every gynecological clinic.

H.B.M.

The Incidence of the Döderlein Vaginal Bacillus During the Post-Climacterium

L. WEINSTEIN and J. H. HOWARD (*Yale Journal of Biology and Medicine*, 10:185, December, 1937) report a study of the vaginal flora in 85 women who had passed the menopause; their ages ranged from thirty-four to eighty-seven years. The secretions obtained from the vagina were cultured in each case; the cultures examined microscopically and the relative number of Döderlein bacillus colonies determined. The Döderlein bacillus was found "in appreciable numbers" in 18 or 21.2 per cent. of these post-climacteric women. There was no correlation between the presence or absence of the Döderlein bacillus and the H-ion concentration of the vaginal secretions. In the cases in which the bacillus was found the pH varied from 5.2 to 7.0, while in those cases in which the bacillus was not present, the pH varied from 5.4 to 7.2. There was also no correlation between the presence or absence of the Döderlein bacillus and the age of the patient or the duration of the menopause. In another small group of women past the menopause, Cruickshank and Sherman found the Döderlein bacillus in 16 per cent. Other investigators have found the Döderlein bacillus in 17 to 18 per cent. of girls before puberty. Thus in post-climacteric women the incidence of the Döderlein bacillus in the vaginal secretions is much the same as in girls before complete ovarian activity is established. These findings support the theory that a relationship exists between the activity of the ovary and the type

of bacteria present in the vaginal secretions.

COMMENT

These and other similar studies lend weight to the fact that there exists a very definite relationship between ovarian activity and the type of bacteria present in the vagina. Normal ovarian activity produces normal vaginal secretions and when this relationship is altered, as after the menopause, very definite changes take place which permit the growth of bacteria, particularly the bacillus of Doderlein. Interesting, but of no clinical significance.

H.B.M.

The "Tunnel" Method for Correction of Uterine Retroversion

J. L. CAMERON (*Surgery, Gynecology and Obstetrics*, 65:679, November, 1937) considers that operation for the correction of retroversions of the uterus is not infrequently indicated for the relief of symptoms, such as backache, dysmenorrhea, dyspareunia, pelvic pain or a feeling of weight, associated with definite retroversion. The operation which he has employed "with uniform success" is a modification of the procedure used by Van Rooy of Amsterdam, Holland. In this operation the uterus is first drawn forward and upward with a traction stitch through the front of the fundus. Two stitches are passed around each round ligament, one about $\frac{1}{4}$ inch and the other about $\frac{1}{2}$ inch from the uterus, and each ligament divided between these stitches. The distal portion of each round ligament is freed for about an inch, and any bleeding vessels secured. A tunnel about $1\frac{1}{4}$ inches long is made through the musculature of the front of the body of the uterus lateral to the midline; the direction of the tunnel is estimated by pulling the uterus into the desired position and drawing the free distal end of the Fallopian tube into the position it will occupy. A pair of forceps is passed through the tunnel and the distal portion of the round ligament on the same side drawn through the tunnel and secured with interrupted stitches of chromicized catgut. This procedure is repeated on the other side. Each round ligament is drawn through the corresponding tunnel far enough to obtain the

desired degree of forward version, and the redundant portion removed. The area in the front of the uterus where the tunnels have been made is covered with a fold of peritoneum. This operation is contra-indicated in the presence of acute or subacute salpingitis; and if the uterus is bound down in its retroverted position by extensive adhesions or dense fibræsis. The special advantages of the operation are that the fundus of the uterus is "tilted forward" without lifting the organ out of the small pelvis; and that the Fallopian tubes are "neither kinked nor bent."

COMMENT

The "tunnel" operation may satisfy the general surgeon but never the gynecologist. It does not seem primarily correct for the following reasons: (1) transplanting the severed round ligaments is not good gynecology; (2) "tunnelling" the anterior surface of the uterus is unnecessarily traumatic; (3) peritonealizing with the bladder fold of peritoneum causes considerable discomfort and pain during the ascent of the uterus in the course of pregnancy—in fact it may cause dystocia during labor due to angulation of the lower uterine segment. There are many suspension operations easier of performance and much more "gynecological" in their results. We would not recommend the "tunnel" operation.

H.B.M.

New Cervix Dilators

J. LOVSET of Bergen, Norway (*Acta obstetrica et gynecologica Scandinavica*, 17:393, 1937) describes two cervical dilators devised by him, one of which is two-pronged and the other four-pronged. The dilatation is effected by means of a small steel spring manipulated by a handle; a graded scale indicates the degree of dilatation reached. In the four-pronged dilator the two outer prongs widen at the point before they begin to separate at the base; this same principle is used in the two-pronged dilator. The part of the dilator lying within the cervix is $6\frac{1}{2}$ cm. long; the diameter of the two-pronged dilator is 4 mm., that of the four-pronged dilator, 6 mm. The former dilates to Hegar 14, and the latter to admit three fingers easily. These dilators may be used for the induction of labor or abortion, and also for dilatation for gynecological procedures, such as curettage and draining and for the treatment of dysmenorrhea. These dila-

tors have been employed by the author in more than 500 cases, and in no instance has any complication arisen that would indicate that the dilator had any injurious effect. In 2 cases in which the dilator was used prior to hysterectomy, examination of the cervix after removal of the uterus showed only superficial injury to the epithelium. The time that the dilator is left *in situ* depends upon the degree of dilatation desired; as a rule in the hospital, the dilator is inserted in the evening and the curettage or other procedure carried out the following morning. Drainage can be carried out during the period of dilatation.

COMMENT

We have never seen nor used these cervical dilators and hence cannot intelligently comment upon them. On general principles, we are against such "pronged" cervical dilators. They are very traumatic and are particularly dangerous in the hands of the occasional or inexperienced operator. H.B.M.

Photographic Records of the Cervix

J. M. BRUNER, L. E. ROSEBROOK and G. W. CUSHMAN (*American Journal of Obstetrics and Gynecology*, 34:1027, December, 1937) describe their method of making photographs of the cervix. They note that textbooks and other gynecological publications do not present good photographs of the cervix but drawings "which are often inaccurate and do not present the true conditions." Good photographs of the cervix are, however, of value as permanent records of the cervix before and after various therapeutic procedures such as cauterization and application of radium. The two chief difficulties in photographing the cervix are proper illumination and adequate exposure. To overcome these difficulties a specially constructed tubular speculum, with lights incorporated in it, is employed. The length of the instrument is 5 inches, which is long enough to expose the cervix in the deepest vagina, and with a short vagina does not protrude outside to any extent. Two sizes are used, one with a 1½ inch diameter and the other a 2 inch diameter—the latter being employed in women who have borne several children. The distal end of the speculum has a ¼ inch bevel, similar to the

Ferguson vaginal speculum, which holds the cervix in position. In making a photograph, the cervix is deflected somewhat to one side with this bevel and the light thrown on the cervix from "the quadrant opposite that to which the cervix has been deflected." The best position for the cervix is determined by rotating the speculum. A Leira camera is used at a maximum distance from the speculum (8 to 10 inches) and focused. The patient lies on the examining table with knee crutches, and is instructed to hold her breath at the end of an expiration, when the exposure is made. With the film employed, the length of the exposure is not more than three to five seconds. Very few patients complain of any discomfort.

COMMENT

Photographs of the cervix are notoriously poor. I have often lamented this fact but never seemed able to overcome the difficulties of poor illumination and good exposure. However, with the advent of illuminated and reflecting specula and lots of practice we are able, as the authors are, to take splendid photographs (often in colors) of the cervix. "Eternal vigilance is the price of success" applies here as elsewhere in life.

H.B.M.



An Attempt to Correlate Prenatal Temperature with Postpartum Morbidity

F. L. FOUCH and D. W. de CARLE (*Western Journal of Surgery*, 45:644, December, 1937) report that at the Prenatal Clinic of Stanford University, since April, 1935, oral temperatures have been recorded at each visit of all patients. Some patients have shown constant or intermittent temperatures above normal for which no adequate cause could be found. In a study of patients who had visited the Prenatal Clinic at least six times during their pregnancy and who were delivered under the authors' supervision between Jan. 1, 1936, and Apr. 1, 1937, a comparison of postpartum morbidity with prenatal temperature was made in 290 women

who had shown an abnormal rise in temperature during pregnancy (Group I) and 85 women who had shown a temperature above 37.2° C. on at least two occasions for which no adequate reason could be found (Group II). All patients whose temperature averaged 37.3° C. or higher during the early puerperium were classed as "morbid." There were 115 such cases, 83 belonging to Group I (28.6 per cent. of this group), and 32 belonging to Group II (37.6 per cent. of this group). Thus there was therefore a higher percentage of postpartum morbidity in the group who had shown fever of unknown origin in the prenatal period. But a study of other factors, such as procedures employed during labor and complications after delivery, that might have caused puerperal morbidity, showed that in the majority of cases in both groups the puerperal morbidity could be explained on these grounds. This, together with the fact that 20 per cent. of the patients who had elevated temperatures during the prenatal period had normal temperatures throughout the puerperium, indicates that there was no significant relation between prenatal temperatures and puerperal morbidity.

COMMENT

Standards for puerperal morbidity are variable. Not all clinics have the same criteria for designating morbidity. Temperature need not necessarily mean morbidity that is due to pelvic pathology. There may be pelvic pathology without temperature, that is, sufficient temperature to class the case as morbid. Another instance of the lack of agreement on "standards" amongst obstetricians. The attempt on the part of the authors to correlate prenatal temperature with postpartum morbidity, while interesting, should not have, in our experience, revealed any significant relationship—and they admit the fact. H.B.M.

Conservative Treatment of Premature Separation of the Normally Implanted Placenta

F. C. IRVING (*American Journal of Obstetrics and Gynecology*, 34:881, November, 1937) reports that at the Boston Lying-In Hospital, 353 patients with premature separation of the placenta were treated from Jan. 1, 1916, to April 1, 1937. All had passed the twenty-eighth week of pregnancy. In 234 of these cases,

the hemorrhage was external; of these patients 204 were delivered through the vagina, with 3 maternal deaths. In the 170 cases delivered normally, with low forceps, or by breech there were no deaths; the 3 deaths occurred in the 34 cases in which operative delivery was necessary. In 30 cases in which Cesarean section was done, there was one death. There were three pairs of twins in this group—a total of 237 infants; 34, or 14.3 per cent., of these infants were dead *in utero* when the mother was admitted to the hospital; 40 others, or 16.8 per cent., were under four pounds in weight when born. Thus in almost one-third of the cases survival of the infant was either impossible or unlikely. For the remaining viable infants, the infant mortality was 7.5 per cent. for vaginal delivery and zero with Cesarean section. In the 119 cases of premature separation of the placenta in which the hemorrhage was chiefly within the uterus, there was some visible bleeding in all but 2 cases. In this group there were 120 infants (one pair of twins); 70, or 58.3 per cent., of these infants were dead at the time of the mothers' admission to the hospital; and 7, or 5.8 per cent., weighed less than four pounds at birth. There was little or no chance of saving the infants, therefore, in about two-thirds of these cases. With viable infants, the infant mortality with Cesarean section was 20.6 per cent., with conservative treatment, 42.8 per cent., and with pelvic operative delivery 50 per cent. Cesarean section, therefore, was more favorable for the infant than vaginal delivery, but this was not true for the mother. In 69 cases in which Cesarean section was done, there were 10 maternal deaths, a mortality of 14.5 per cent.; and in 34 cases treated conservatively, usually by Polak's method, with normal delivery or low forceps, there was one death, or 2.9 per cent. Where operative delivery was necessary (in 16 cases), the mortality was higher (3 deaths, or 18.7 per cent.). Other obstetricians, using Cesarean section in the treatment of premature detachment of the placenta with internal hemorrhage, report an average maternal mortality of 20.5 per cent. Since 1931, no patient with internal hemorrhage from premature detachment of the placenta has been treated by Cesarean

section unless the infant was living and viable, and the mother in good condition.

COMMENT

Premature separation of the normally implanted placenta (*ablatio placentae*) is a serious accident under any circumstances, and when the separation is massive the accident becomes profoundly serious. No patient should be subjected to traumatic manipulation, not to mention laparotomy, while in shock. The indication, therefore, is always to treat the "shock" first and the "accident" later, when the patient's general condition has improved. This principle is nowhere better exemplified than in *ablatio placentae*. We can agree, therefore, without reservation, to the author's plea for conservative treatment of the premature separation of the normally implanted placenta.

H.B.M.

The Prevention of Eclampsia

K. de SNOO (*American Journal of Obstetrics and Gynecology*, 34:911, December, 1937) discusses the prevention of eclampsia on the basis of his own experience in Utrecht, Holland. From his study of the relation between edema and eclampsia, albuminuria and eclampsia, and hypertension and eclampsia, and of the nature and duration of the eclamptic attacks in 136 cases, the author concludes that the eclamptic attack is a separate entity of pregnancy, not a stage of toxemia, the consequences of which, owing to reflex vascular cramp are similar to those of "toxemia proper" but more severe. Of 2,400 women coming to the author's clinic with toxemia of pregnancy only 54 developed eclampsia; and although the treatment instituted in these cases probably prevented an attack of eclampsia in some instances, the greater majority would never have developed eclampsia. Many of the women admitted with eclampsia had never had albuminuria, headache or other pronounced symptoms of toxemia. In his further study of eclampsia, the author has found retention of salt an important factor in the production of eclampsia; and that a salt-free diet instituted whenever edema or hypertension or both developed in a pregnant woman can prevent the occurrence of eclampsia. The diet must be carefully prescribed and strictly followed. In the year 1936, there were 2,149 pregnant women under the control of the author's clinic (most of

these patients being delivered in their homes). In 562, or 26.1 per cent. of these cases, the salt-free diet was prescribed in the latter part of pregnancy. The chief indications for this diet were edema only (251 cases), hypertension only (133 cases), edema and hypertension (124 cases). In this series there was no death from eclampsia; only 21 women developed eclampsia; in 2 cases eclampsia occurred in women who had shown no anomaly shortly before its occurrence; in 3 cases in patients within a day after they had registered at the Clinic; the others who developed eclampsia had not adhered strictly to their diet.

COMMENT

Any data presented on the prevention of eclampsia are important, since, until we know more about the cause, we cannot know very much about the treatment of the disease itself. Prophylaxis, therefore, is most important. Dr. de Snoo is very enthusiastic over "a salt-free diet" in the prevention of eclampsia. We doubt, however, that the "salt-free" portion of the diet accounts for all the beneficial effects, since with adequate prenatal care, with no attention to the ingestion of salt (sodium chloride), we have practically eliminated eclampsia in our prenatal clinics, as well as in private practice. It would seem, therefore, from our experience, that eclampsia can largely be prevented by adequate prenatal care, which includes regulation of the diet, the prevention of too much gain in weight—25 to 30 pounds maximum (very important!), relief from overwork and worry, etc., etc.; and that, while sodium chloride may be a contributing factor, it is certainly not the most important element in the prevention of eclampsia.

H.B.M.

A Modification of the Kielland, Simpson and Tucker-McLane Forceps to Simplify Their Use

R. LUIKART (*American Journal of Obstetrics and Gynecology*, 34:686, October, 1937) describes a modification that can be employed for Kielland, Simpson, or Tucker-McLane forceps. He notes that when a forceps is properly applied the greatest danger to the fetus is from the slipping of the forceps. But the fetus may also be injured if too great compression is exerted by the forceps. If the forceps is fenestrated, these dangers may be avoided to a certain extent, but there is always a possibility that an ear, nose

or superciliary ridge may protrude through the fenestra, and then a slight slip of the forceps may seriously damage this part. The solid blade obstetric forceps, the author notes, is the only surgical instrument with a smooth surface that is used for traction. The modification described by the author is designed to overcome these dangers. This modification consists of a change in the blade of the forceps so that the pelvic side is smooth, but there is a depression in the fetal surface of the blade similar to the fenestra in a fenestrated blade. This may be described as a fenestra with the pelvic side closed. The weight of the forceps is practically unchanged. The application and removal of the modified forceps is made with greater ease; and the dangers of slipping and of too great compression of the fetus are definitely diminished.

COMMENT

Those of us fortunate enough to have worked in the old Sloane Hospital for Women in New York City were taught "forceps" by men trained by Tucker, McLane and Craigin, which meant solid blade forceps. Properly applied, the solid blade forceps of Tucker-McLane do not usually "slip" any more easily than the fenestrated forceps. This does not mean that solid blade forceps never slip. They do. Likewise, so do the fenestrated forceps or any other type of forceps. The correctness of application is more important than the type of forceps used. The modification of the various types of obstetric forceps as devised by Dr. Luikart is interesting and appears reasonable. We have had no personal experience with the "modified forceps" but would not hesitate to recommend them.

H.B.M.

Uterine Curettage as an Aid in the Diagnosis of Ectopic Pregnancy

R. S. SIDDALL and C. JARVIS (*Surgery, Gynecology and Obstetrics*, 65:820, December, 1937) report a study of the uterine endometrium in 38 cases of proved ectopic pregnancy at the Harper Hospital, Detroit, Michigan. In all these cases the diagnosis was established by the extra-uterine presence of a fetus or chorionic villi. In 29 of these cases the endometrial specimen was obtained by curettage, in 6 by hysterectomy, and from decidual cast or discharged

fragments in 3 cases. Comparing the endometrial findings with the length of time elapsing between the onset of abnormal vaginal bleeding and the time that the endometrial specimen had been obtained, the authors show that when bleeding had been present ten days or less, intact decidua was found in every case; in some instances intact decidua was present following more prolonged bleeding. The authors have found that curettage is not harmful in ectopic pregnancy; and the finding of intact decidua without chorionic villi in the endometrial specimens obtained by this procedure is of definite value as a diagnostic sign of ectopic pregnancy. The absence of a decidual reaction is not to be regarded as definite evidence against ectopic pregnancy. If chorionic villi are also absent, the findings may be of value as ruling out abortion as the cause of the abnormal bleeding.

COMMENT

Notwithstanding the fact that very extensive investigation has been devoted to the diagnosis of ectopic pregnancy, it still remains the enigma of gynecology. Statistics reveal that the correct diagnosis is only made in from 60 to 80 per cent of the cases — usually the former figure is more nearly the average. History is often of much more value than physical examination. The biological tests for pregnancy are helpful. The authors now recommend uterine curettage and examination of the "scrapings" for the presence or absence of decidual tissue in the diagnosis of tubal pregnancy. This test, of course, is open to error but if positive is of definite value. There is certainly no harm in properly performed curettage, and there may be instances where, due to absence of other signs and symptoms of ectopic pregnancy, this procedure might prove of very great value. Certainly it is worth a trial where indicated. We have performed diagnostic curettage in a few cases with gratifying results.

H.B.M.

CULTURAL MEDICINE

Kings County Medical Library—

—Concluded from page 89

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Medical Book News

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Edited by Alfred E. Shipley, M.D., Dr. P.H.

Allergy for the General Practitioner

CLINICAL ALLERGY.
By Louis Tuft, M.D.
Philadelphia, W. B.
Saunders Company, [c.
1937], 711 pages, illus-
trated. 8vo. Cloth,
\$8.00.

This well written volume is a distinct contribution to the literature on allergy. It is written primarily for the general practitioner and medical student. The practical aspects of the subject are thoroughly presented. Sufficient theoretical discussions are included to give an adequate foundation for the intelligent application of the practical principles.

Many photographs, charts, and case histories illustrate the text. The techniques commonly employed in diagnosis and treatment are covered in sufficient detail for the novice to become adequately informed on these procedures.

A comprehensive appendix dealing with laboratory methods and practical techniques contains a wealth of information on immunologic practices

in the field of allergy. Diets, prescriptions, and all sorts of practical hints are included. A generous bibliography under convenient headings offers the student an easy approach to almost any aspect of the subject.

The author is to be congratulated on this well planned, comprehensive volume. As a practical book on Clinical Allergy it fulfills its purpose admirably.

MATTHEW WALZER.

Animal Parasites and Human Disease

CLINICAL PARASITOLOGY. By Charles F. Craig, M.D. and Ernest C. Faust, Ph.D. Philadelphia, Lea & Febiger, [c. 1937], 733 pages, illustrated. 8vo. Cloth, \$8.50.

Human infections and human diseases due to animal parasites are ably dealt with in this important contribution by American authors in a field long dominated by German, French English and Italian investigators.

As in any textbook, didactic expression must at times be given to views which are not universally shared. In the present work



Classical Quotations

● I have never yet examined the body of a patient dying with dropsy attended with coagulable urine, in whom some obvious derangement was not discovered in the kidneys.

Sir Richard Bright Reports of Medical Cases selected with a View of Illustrating the symptoms and Cure of Diseases by a Reference to Morbid Anatomy (London, 1827), Vol. 1.

an example might be found on page 14 where it is said that "lymphocytosis with leucopenia constitutes the essential pathology of (kala azar)." Equally authoritative opinion could be cited for the view that kala azar is fundamentally a parasitic disease of the reticulo-endothelial system with blood changes, only one symptom among many symptoms of this invasion. On the other hand, full deference to opposing scientific opinion is made where this opinion represents a majority consensus, as in the case of protozoal parasites originally described by the senior author but not yet generally accepted (pp. 113, 189). Errors, factual or typographical, are indeed few: data on the 1933 Chicago epidemic of amebiasis (p. 49); foudin for fuadin (p. 367) is wrong as the drug was named in honor of King Fuad I of Egypt.

In future editions two modifications might with advantage be made in content and form of the book. The first would be to supplement the section on protozoology with colored plates which it is hoped will attain the high standard set by Thompson & Robertson in 1929 in their beautifully illustrated volume. The second would be to employ in the section on helminthology small type to describe the rarer human species. The reference use of this section would be made easier by this change, and by relegation of the table of zoological classification to the appendix, rather than distributing it in the body of the text.

The book will survive for its fundamental soundness and its solid basis in the very extensive and important original investigations of the two authors. The fortunate association of a distinguished protozoologist and an equally distinguished helminthologist in the Department of Tropical Medicine at Tulane University has given us an American textbook that will be one of the substantial building stones of the future.

ELLISTON FARRELL.

A Study in Neurosyphilis

LATENT SYPHILIS AND THE AUTONOMIC NERVOUS SYSTEM. By Griffith Evans, F.R.C.S. Second edition. Baltimore, William Wood and Company, [c. 1937]. 158 pages, illustrated. 8vo. Cloth, \$3.00.

FEBRUARY, 1938

Latent syphilis is frequently very difficult to prove. Particularly is this true in the present book, as no definite criteria are laid down as necessary for its diagnosis.

Of course, it is well recognized that there are many cases of syphilis in which a Wassermann is negative. In such cases a therapeutic test is the best evidence of the disease. This is the proof most frequently accepted by the author. He has had a wealth of material, and has treated many diseases with mercury and iodids not usually considered syphilitic, and has obtained cures for which permanence is claimed. Whether some of these cases might have recovered under other forms of therapy, of course, belongs entirely in the realm of speculation.

The author is to be complimented for calling attention to the fact that syphilis should be kept in mind in certain diseases whose etiology is more or less obscure. Some of the diseases which he believes to be frequently syphilitic are hypo- and hyper-thyroidism, allergy and related diseases, nervous dysphagia and dyspepsia, the "chronic abdomen" and certain diseases of tongue.

JOHN C. GRAHAM.

A Study of Cerebral Palsy in Children

CHILDREN HANDICAPPED BY CEREBRAL PALSY. Psychological Factors in Management. By Elizabeth E. Lord, Ph.D. with a medical explanation by Bronson Crothers, M.D. New York, The Commonwealth Fund, [c. 1937]. 105 pages, illustrated. 8vo. Cloth, \$1.25.

This book is a resume of the examination and follow up of more than three hundred cases of cerebral palsy. Its aim is to bring out the importance of psychological factors involved in planning for the proper mental and physical development of a child handicapped by cerebral palsy.

There is a detailed presentation of the mental testing program. The results of the evaluation of the mental development in relation to its clinical value are stressed. This clinical value is greatest in presenting an objective analysis of the mental condition which will provide a sound basis for educational plans. A chapter on the emotional problems of child and parent concludes the work.

This book will be of particular interest

to physicians who are called upon to outline a plan of procedure for infants and children handicapped by cerebral palsy.

STANLEY S. LAMM.

A Handbook on Urology

SYNOPSIS OF GENITOURINARY DISEASES. By Austin I. Dodson, M.D. Second edition. St. Louis, The C. V. Mosby Company, [c. 1937]. 294 pages, illustrated. 12mo. Cloth, \$3.00.

The author has contributed a comprehensive survey of genitourinary diseases in less than three hundred pages. The text is given in modern clinical style in sharp contrast to that of the old compendia of genitourinary diseases. The reader cannot fail to realize the wide advances and accomplishments of the specialty. Over a hundred pen and ink drawings add materially to the value of the work. The book will find its greatest use with medical students, and should receive wide and enthusiastic endorsement.

AUGUSTUS HARRIS.

Another Volume of International Clinics

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc. Volume III, Forty-Seventh Series, 1937. Edited by Louis Hamman, M.D. Philadelphia, J. B. Lippincott Company, [c. 1937]. 328 pages, illustrated. 8vo. Cloth, \$5.00.

The first section is composed of Medical Clinics of the Johns Hopkins Hospital, and among the subjects are "Meningococcus Meningitis," "Subacute Bacterial Endocarditis," "Diabetes Mellitus Treated with Protamine Zinc Insulin" and "Friedlander's Pneumonia." There are several articles on tuberculosis and syphilis, on the endocrine glands, on diseases of metabolism, and on diseases of the joints. In the section on Disease of the Heart and Circulation, George Herrmann presents an interesting account of coronary thrombosis and cardiac infarction.

WILLIAM E. MCCOLLOM.

More About Food and Health

YOUR DIET AND YOUR HEALTH. By Morris Fishbein, M.D. New York, McGraw-Hill Book Company, Inc., [c. 1937]. 298 pages. 8vo. Cloth, \$2.50.

There are today many books dealing with metabolism and nutrition written

in simple language for the layman. It requires, however, the efforts of an artist to take the basic laws of the science of nutrition and convert them into highly interesting and readable material. Dr. Fishbein has done that in this book. He deals with the caloric requirements of the body, the physiology of digestion and the metabolism of various food constituents in a unique fashion, and also discusses diets in health and in diseased conditions. There is a strain of Dr. Fishbein's humor which carries through the entire book. The reviewer can recommend this work as one of the best and most authoritative on the subject.

WILLIAM S. COLLENS.

A Plea for a Ministry of Public Health

CHILD LABOR AND THE NATION'S HEALTH. By S. Adolphus Knopf, M.D. Boston, The Christopher Publishing House, [c. 1937]. 32 pages, illustrated. 16mo. Paper, \$.50.

In this little brochure Dr. Knopf pleads for a ratification of the Child Labor Amendment, claiming that by its enactment there will follow a decrease in pulmonary tuberculosis, an increase in the nation's health in general, the adoption of medical examinations of old and young, and the creation of a Ministry of Public Health. In support of this contention the author employs arguments old and new, many of which are sound and some of which are debatable. Whether or not one agrees with Dr. Knopf in all his claims, the treatise makes most interesting reading, especially to one who is social-welfare minded.

FOSTER MURRAY.

Neurology for Nurses

NERVOUS AND MENTAL DISEASES FOR NURSES. By Irving J. Sands, M.D. Third edition, reset. Philadelphia, W. B. Saunders Company, [c. 1937]. 321 pages, illustrated. 8vo. Cloth, \$2.00.

This is the third edition of a book a little larger than pocket size of approximately 320 pages. The thirteen chapters of the subject matter deal interestingly with the essentials of Neuropsychiatry. It opens with a discussion of anatomy, the endocrines, and psychology, which should be more than ample for any nurse. Then follows a descriptive classification with causes and symptoms of

neurological and mental disorders, one chapter each. The discussion of the latter is along psychogenic and organic lines, and the difference, by comparison, should be quite clear to the student. Considerable attention is given to the so-called borderline types, neuroses, psychopathic states, drug addiction and mental deficiencies. The story is rounded out with a resume of the history of psychiatry, the growth of mental hygiene and the essentials of psychoanalysis. Throughout the book nursing suggestions are made for the various types of reaction, but the final chapter is devoted to the more special nursing methods, and covers enough and more than the average nurse at present needs. In this revision the author has rewritten much of the text matter and incorporated new material to keep the work abreast of the recent advances in the subject the volume covers. The book should appeal to and broaden the knowledge of any ambitious neuro-psychiatric nurse.

ARTHUR E. SOPER.

Fishberg's New Work on the Heart

HEART FAILURE. By Arthur M. Fishberg, M.D. Philadelphia, Lea & Febiger, [c. 1937]. 738 pages, illustrated. 8vo. Cloth, \$8.50.

This volume is to be recommended for its completeness, thoroughness of presentation, and clarity of text. Much that because of space cannot be included in textbooks on diagnosis and practice is given in detail.

What a satisfaction to turn to such subjects as venous pressure, circulation time, gallop rhythm, or cardiac enlargement, and find the facts that one has sought for elsewhere in literature.

The author's style is pleasing, and he is faithful in giving dates establishing priority. Cardiac pain, discussed in fourteen pages carries thirty-nine references: so there is no paucity of references to literature.

Accounts of the hyperthyroid heart, the myxedema heart and the beri-beri heart are excellent.

Too often a reviewer in emphasizing the value of a work, states that it should be on our bookshelves. In this instance, the reviewer will conclude by saying that it would be a comfort, gratification and joy to have this book at his elbow for

consultation in the field of cardiac failure.

FRANK BETHEL CROSS.

The Neuroses Briefly Considered

THE COMMON NEUROSES. Their Treatment by Psychotherapy. An Introduction to Psychological Treatment for Students and Practitioners. By T. A. Ross, M.D. Second edition. Baltimore, William Wood & Company, [c. 1937]. 236 pages. 8vo. Cloth, \$4.00.

The book before us was written by a man with large experience in psychiatry. The result is an excellent manual containing a detailed discussion of the whole problem of psychoneuroses. One chapter is devoted to etiology, another to differential diagnosis. Much space is properly taken up with the elucidation of the anxiety neuroses, and many case records are cited to illustrate the text.

The author speaks of mental exploration (a familiar expression among English psychiatrists), discusses logically the anxiety states, insists upon exhaustive histories and a deeper penetration into the make-up of the individual, his anxieties, fears and obsessions. Here and there he mentions Freudian principles, but relies mainly upon commonsense conceptions, and discusses with the patient the latter's difficulties. He speaks of unconscious motivation and expects by a sort of heart to heart talk with the patient to get at the root of his troubles.

The author addresses himself chiefly to the general practitioner giving advice on how to treat his nervous patients psychotherapeutically by discussing with them their problems, past and present. It is our view that the general practitioner neither has the time nor patience nor the preparation for such procedure. Psychoanalysis and any other form of psychotherapy must of necessity be the occupation of a few who have the time, inclination and the training for this work.

Barring these few criticisms, we must be thankful to the author for an exceedingly able and lucid presentation of the subject of neuroses. The reader will find much that is helpful and stimulating should he venture upon the treatment of the psychoneurotic.

JOSEPH SMITH.

A New Edition of Bastedo

MATERIA MEDICA PHARMACOLOGY THERAPEUTICS AND PRESCRIPTION WRITING FOR STUDENTS AND PRACTITIONERS. By Walter A. Bastedo, M.D. Fourth edition. Philadelphia, W. B. Saunders Company, [c. 1937]. 778 pages, illustrated. 8vo. Cloth, \$6.50.

The new edition retains all the splendid features of Bastedo's textbook. Many new items of interest and a description of the more recently introduced drugs bring the material up to date.

The method used by the author is direct, concise and never verbose. A fine clinical approach pervades the work; enough experimental pharmacology and pharmaceutical information is given to help the reader to a better understanding of the practical application of the subject. Prescription writing is covered in twenty-three pages and is exceptionally well done.

This book is heartily recommended to both medical students and practitioners.

CHARLES SOLOMON.

Biochemistry for Medical Students

THE ESSENTIALS OF CHEMICAL PHYSIOLOGY FOR THE USE OF STUDENTS. By the late W. D. Halliburton, M.D., J. A. Hewitt, Ph.D., and W. Robson, Ph.D. Thirteenth edition. New York, Longmans, Green and Company, [c. 1937]. 350 pages, illustrated. 8vo. Cloth, \$4.00.

The title of the book is misleading from the viewpoint of the uninitiated, for it is easily confused with the term "physiological chemistry." Chemical physiology, the authors wisely point out in the introduction, is that branch of physiology which in terms of chemistry describes the phenomena associated with living matter. It deals with the chemical composition of the body and the role played by the substances found there in the maintenance of life. The American synonym for this term would probably be simply biochemistry.

This text is obviously written for the use of students studying medicine. It is intended to cover the necessary items in the chemical interpretation of body function and the chemical study of the products of the body (blood, urine, digestive juices, etc.), with an eye towards preparing him for chemical diagnosis and pathology. This aim is accomplished by first a study of carbohydrates, fats and proteins. A chapter is then devoted to elementary physical chemistry in its

physiological applications. Here such things as pH, osmosis, colloids are briefly discussed. This is followed by chapters on the chemistry of digestion, blood and respiration, tissues, and urine. Throughout there are correlating laboratory experiments of a simple nature yet adequate from a medical student's viewpoint. The determining of pathological elements in blood and urine is extremely brief.

No material is covered in this book which may not be found more adequately described in other biochemistry texts. There are no references to current literature and no bibliographies. The illustrations are to the point and are very practical.

As previously mentioned the book is primarily intended for use of medical students in their pre-clinical years. Only established knowledge and methods are treated, and they are described briefly but succinctly. The book will probably be useful to physicians and medical students who wish to review the essentials of their biochemistry without having to thumb excessive numbers of pages.

J. DiPALMA.

A Treatise on Infant Feeding

FEEDING BEHAVIOR OF INFANTS. A Pediatric Approach to the Mental Hygiene of Early Life. By Arnold Gesell, M.D. and Frances L. Ilg, M.D. Philadelphia, J. B. Lippincott Company, [c. 1937]. 201 pages, illustrated. 4to. Cloth, \$4.50.

This is an interesting and scientific treatise on The Feeding Behavior during infancy and early childhood. The work is the result of careful and painstaking observations both at the child's home as well as at the Yale Clinic of Child Development. The book discusses accurately and in minute detail the "behavior pattern" of the normal infant and the growing child.

The pediatrician will find here a fount of information that he may utilize in his daily work. Chapter 10, on feeding schedule and feeding interval, should prove to be very instructive and of practical application.

Behavior hygiene is treated ably and systematically without the customary preachments.

The high light of this work is reached in the chapter on "Adult-Infant Relationship" where "the pediatrician can

reach the mind of the infant by altering the undesirable attitude in the parents."

Altogether an original work and a milestone in the pioneering of the newer type of infant care and feeding, it deserves to be consulted by all those interested in the management of infants and children.

HARRY APPEL.

Care of the Spastic Child

THE HOME TREATMENT OF SPASTIC PARALYSIS. Written in a simple, practical way with many detailed drawings. By Percy M. Girard, M.D. Philadelphia, J. B. Lippincott Company, [c. 1937]. 130 pages, illustrated. 12mo. Cloth, \$2.00.

This book has been written to serve as an aid to parents of spastic children. There is a simple description of spastic paralysis to acquaint the lay person with the nature of the disease so that whoever is to supervise the training of the spastic child may have a better understanding of the situation.

Exercises are described with illustrations to cover a morning period of forty-five minutes of such therapy. Other sections are devoted to speech training and occupational therapy.

The book is simply written and may well be offered to any parent who has a spastic child.

STANLEY S. LAMM.

A New Edition of Clendening's Treatment

METHODS OF TREATMENT. By Logan Clendening, M.D. Sixth edition. St. Louis, The C. V. Mosby Company, [c. 1937]. 879 pages, illustrated. 8vo. Cloth, \$10.00.

As in the previous editions, the book describes all types of therapeutic procedure, such as the use of drugs, diet, blood transfusion, spinal puncture and all the other usual methods of treatment. Having these all in one volume is very convenient. The author states that he has departed from his extremely conservative view of artificial pneumothorax, and has rewritten that chapter. Among the new discussions in this edition are those on protamine insulin, mandelic acid, sulfanilamide, staphylococcus toxoid and pertussis vaccine.

The book is arranged in two parts, the first on "General Therapeutics—The Methods Used in Treatment," and the second, "Special Therapeutics—The Application of Therapeutics to Particular Diseases."

The author's ability as a writer is well known, and this, together with the collection of many procedures given in sufficient detail to make them immediately usable, creates an excellent book.

WILLIAM E. MCCOLLOM.

A Resume of False or Spurious Pregnancy

PSEUDOCYESIS. By George Davis Bivin, Ph.D., and M. Pauline Klinger, M.A. (A Monograph of the George Davis Bivin Foundation). Bloomington, Indiana, The Principia Press, Inc., [c. 1937]. 265 pages, illustrated. 8vo. Cloth, \$4.00.

This work is a full resume of this interesting subject, with details of a great many cases from the literature and a long list of references. Some new cases are reported, but whether all the cases hitherto reported are included or not, the author does not say. No attempt has been made at correlation, nor is this possible, for we only know as much today about this curious condition as Hippocrates did.

CHARLES A. GORDON.

An Experimental Study of Biliary Secretion

PHYSIOLOGICAL CHEMISTRY OF THE BILE. By Harry Sobotka. Baltimore, The Williams & Wilkins Company, [c. 1937]. 202 pages. 8vo. Cloth, \$3.00.

The increasing need of surgeons and medical men, for additional data based on the fundamental sciences almost demands the publication of books such as this. The author presents the subject in systematic fashion, and although quite confined, succeeds in giving a fairly complete review of it. He discusses in detail the hepatic secretion and the composition of human and animal bile with the known normal and pathological variations.

The book has a general appeal to the reviewer, but of particular interest are chapters seven and eight, which deal with the occurrence of bile acids outside the biliary tract and the effects of bile acids respectively.

The quantity of bile secretion, as described by the author and still generally accepted, points to a somewhat periodic change in the secretory rate of the liver, which the work of Kocur of Northwestern University has recently shown not to be the case.

The book is well worth reading, and the bibliography and authors' index are of great value to those interested in doing further research.

A. F. SAVA.

BOOKS RECEIVED

Books received for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.

- A BIBLIOGRAPHY OF THE WORKS OF AMBROISE PARE: PREMIER CHIRURGIEN & COUNSEILLER DU ROY. By Janet Doe. Chicago, The University of Chicago Press, [c. 1937]. 266 pages, illustrated. 4to. Cloth, \$5.00.
- PRE-NATAL AND POST-NATAL MANAGEMENT. By T. St. George Wilson, M.B., F.R.C.S. Baltimore, William Wood & Company, [c. 1937]. 206 pages, illustrated. 8vo. Cloth, \$4.00.
- MUIR'S BACTERIOLOGICAL ATLAS. By C. E. van Rooyen, M.D. Second edition. Baltimore, William Wood and Company, [c. 1937]. 90 pages, illustrated. 8vo. Cloth, \$5.25.
- MODERN TREATMENT IN GENERAL PRACTICE. Volume III edited by Cecil P. G. Wakeley, F.R.C.S. Baltimore, William Wood and Company, [c. 1937]. 436 pages, illustrated. 8vo. Cloth, \$4.00.
- MINOR MALADIES AND THEIR TREATMENT. By Leonard Williams, M.D. Seventh edition. Baltimore, William Wood and Company, [c. 1937]. 439 pages. 12mo. Cloth, \$3.75.
- A METHOD OF ANATOMY DESCRIPTIVE AND DEDUCTIVE. By I. C. Boileau Grant, M.B. Baltimore, William Wood and Company, [c. 1937]. 650 pages, illustrated. 4to. Cloth, \$6.00.
- GENITAL ABNORMALITIES, HERMAPHRODITISM & RELATED ADRENAL DISEASES. By Hugh H. Young, M.D. Baltimore, The Williams & Wilkins Company, [c. 1937]. 649 pages, illustrated. 4to. Cloth, \$10.00.
- THE 1937 YEAR BOOK OF UROLOGY. Edited by John H. Cunningham, M.D. Chicago, The Year Book Publishers, Inc., [c. 1937]. 472 pages, illustrated. 12mo. Cloth, \$2.50.
- ARTERIOVENOUS ANEURYSM. Abnormal Communications Between the Arterial and Venous Circulations. By Emile Holman, M.D. New York, The Macmillan Company, [c. 1937]. 244 pages, illustrated. 8vo. Cloth, \$5.00.
- INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc. Edited by Louis Hamman, M.D. Volume IV. Forty-seventh Series, 1937. Philadelphia, J. B. Lippincott Company, [c. 1937]. 343 pages, illustrated. 8vo. Cloth, \$3.00.
- HARLOW BROOKS. MAN AND DOCTOR. By John J. Moorhead, M.D. New York, Harper & Brothers, [c. 1937]. 302 pages, illustrated. 8vo. Cloth, \$3.50.
- THE SCIENCE OF SEEDING. By Matthew Luckiesh, D.Sc. & Frank K. Moss, E.E. New York, D. Van Nostrand Company, [c. 1937]. 548 pages, illustrated. 8vo. Cloth, \$6.00.
- PUBLIC MEDICAL SERVICES. A Survey of Tax-supported Medical Care in the United States. By Michael M. Davis. Chicago, University of Chicago Press, [c. 1937]. 170 pages. 8vo. Cloth, \$1.50.
- IN THE REALM OF MIND. Nine Chapters on the Applications and Implications of Psychology. By Charles S. Myers, C.B.E. New York, The Macmillan Company, [c. 1937]. (Cambridge University Press). 251 pages. 12mo. Cloth, \$2.50.
- APPENDICITIS. A Clinical Study. By W. H. Bowen, M.S. New York, Macmillan Company, [c. 1937]. (Cambridge University Press). 201 pages. 12mo. Cloth, \$2.50.
- WHY GROW OLD? A Guide-Book for the Man Who Seeks to Remain Physically and Mentally Young. By Frank S. Caprio, M.D. and Owsley Grant, M.D. Indianapolis, Maxwell Droke, Publisher, [c. 1937]. 204 pages. 8vo. Cloth, \$2.50.
- NEULAND IN DER HEILKUNDE. By Dr. Henri Hirsch. Basel, S. Karger, [c. 1937]. 87 pages. 8vo. Paper, Swiss Francs 3.20.
- THE 1937 YEAR BOOK OF THE EYE, EAR, NOSE AND THROAT. The Eye by E. V. L. Brown, M.D. and Louis Bothman, M.D. The Ear, Nose and Throat by George E. Shambaugh, M.D., Elmer W. Hagens, M.D. and George E. Shambaugh, Jr., M.D. Chicago, The Year Book Publishers, [c. 1937]. 640 pages, illustrated. 12mo. Cloth, \$2.50.
- THE DOCTOR LOOKS AT MURDER. By M. Edward Marten, M.D. Garden City, Doubleday, Doran & Company, [c. 1937]. 325 pages, illustrated. 8vo. Cloth, \$3.00.
- PROCEDURE FOR HOSPITAL COSTS. The Determination of Departmental and Service Costs. By William A. Dawson. New York, United Hospital Fund of New York, [c. 1937]. 30 pages. 8vo. Cloth, \$1.00.
- MEDICO-LEGAL ASPECTS OF THE RUXTON CASE. By John Glaister, M.D. and James C. Brash, M.D. Baltimore, William Wood & Company, [c. 1937]. 284 pages, illustrated. 4to. Cloth, \$6.00.
- MODERN DIETARY TREATMENT. By Margery Abrahams, M.A. and Elsie M. Widdowson, B.Sc. Baltimore, William Wood and Company, [c. 1937]. 328 pages. 12mo. Cloth, \$3.25.
- VADE MECUM OF MEDICAL TREATMENT. By W. Gordon Sears, M.D. Baltimore, William Wood & Company, [c. 1937]. 368 pages. 12mo. Cloth, \$4.00.
- WHEELER AND JACK'S HANDBOOK OF MEDICINE. Revised by John Henderson, M.D. Tenth edition. Baltimore, William Wood and Company, [c. 1937]. 703 pages, illustrated. 12mo. Cloth, \$4.00.
- SYNOPSIS OF OBSTETRICS AND GYNACOLOGY. By Aleck W. Bourne, M.A. Seventh edition. Baltimore, William Wood and Company, [c. 1937]. 452 pages, illustrated. 12mo. Cloth, \$4.00.
- PRACTICAL METHODS IN BIOCHEMISTRY. By Frederick C. Koch. Second edition. Baltimore, William Wood & Company, [c. 1937]. 302 pages, illustrated. 8vo. Cloth, \$2.25.
- THE HAIR AND SCALP. A Clinical Study. By Aenes Savill, M.D. Second edition. Baltimore, William Wood & Company, [c. 1937]. 309 pages, illustrated. 8vo. Cloth, \$4.75.
- MEDICINE FOR NURSES. By W. Gordon Sears, M.D. Second edition. Baltimore, William Wood & Company, [c. 1937]. 435 pages, illustrated. 12mo. Cloth, \$3.25.

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